IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Kent F. Hayes, Jr.	Docket No.: RSW920030232US1
Serial No.: 10/787,520	Examiner: Keehn, Richard G.
Filed: February 26, 2004	Art Unit: 2456
Confirmation No.: 6473	

For: METHOD, SYSTEM AND PROGRAM PRODUCT FOR RESOLVING PREREQUISITES FOR A CLIENT DEVICE IN AN OPEN SERVICE GATEWAY INITIATIVE (OSGI) FRAMEWORK

May 2, 2011

Board of Patent Appeals and Interferences
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sir:

APPEAL BRIEF

An **APPEAL BRIEF** is filed herewith. Appellant also encloses a payment in the amount of $540.00 as required by 37 C.F.R. § 1.17(c). If any additional fees are required in association with this appeal brief, the Director is hereby authorized to charge them to Deposit Account 09-0461, and consider this a petition therefor.

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1. REAL PARTY IN INTEREST

The real party in interest is the assignee of record, International Business Machines Corporation, a corporation duly organized and existing under the laws of the State of New York and having a principal place of business at New Orchard Road, Armonk, NY, 10504.

2. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences to the best of Appellant's knowledge.

3. STATUS OF CLAIMS

Claims 1, 3-16, 18-25, and 27-32 were rejected with the rejection made final on December 6, 2010.

Claims 2, 17, and 26 were previously cancelled without prejudice.

Claims 1, 3-16, 18-25, and 27-32 are pending and the subject of this Appeal.

4. STATUS OF AMENDMENTS

All amendments have been entered to the best of Appellant's knowledge.

5. SUMMARY OF CLAIMED SUBJECT MATTER

The line numbers cited within this Summary of Claimed Subject Matter section represent counted lines of text on the respective pages within the Specification as originally filed beginning with the first text line of each cited page including section headings, and do not include blank lines in the Specification (e.g., blank lines ahead of section headings, etc.), to ease counting for citation and review using the respective line numbers that are cited.

The present invention provides a computer-implemented method, computerized system, and program product for resolving prerequisites for client devices in an Open Service Gateway Initiative (OSGi) framework. (Specification, para. 0001, page 1, lines 6-8).

Independent claim 1 recites a computer-implemented method for resolving prerequisites for client devices in an Open Service Gateway Initiative (OSGi) framework (Specification, para. 0001, page 1, lines 6-8), comprising: determining, on a server device (Fig. 1 and Fig. 2, element 12), prerequisites for an OSGi bundle (Fig. 1, element 18) to be loaded on a client device (Specification, para. 0021, page 9, lines 1-2; and Fig. 1 and Fig. 2, element 14), the prerequisites comprising a set of all OSGi bundles that are necessary for utilizing the OSGi bundle (Specification, para. 0021, page 9, lines 2-4); communicating, prior to communicating any of the OSGi bundles to the client device, a list of the prerequisites from the server device to the client device (Specification, para. 0022, page 9, lines 9-10; and Fig. 1 and Fig. 2, element 14); receiving a response from the client device (Specification, para. 0022, page 9, lines 18-20; and Fig. 1 and Fig. 2, element 14), wherein the response identifies any resource limitations of the client device determined by the client device based on a comparison of the list of the prerequisites and current OSGi package and OSGi service interface resources of the client device (Specification, para. 0022, page 9, lines 11-20), the resource limitations comprising all prerequisites of the list of the prerequisites (Specification, para. 0032, page 17, line 2, "list of needs") that are not currently present on the client device (*Id.*); automatically recursively resolving via the server device (Specification, para. 0023, page 10, lines 14-20; and Fig. 1 and Fig. 2, element 12), in response to determining that the list of the prerequisites that are not currently present on the client device would not require more client device OSGi package and OSGi service interface resources than the current OSGi package and OSGi service interface resources of the client device (Specification, para. 0022, page 9, line 22 through page 10, line 7), the prerequisites by identifying a final set of OSGi bundles on the server device that fulfills the

prerequisites within the resource limitations of the client device (*Id.*); and substituting via the server device (Specification, para. 0022, page 10, lines 7-13), in response to determining that the list of the prerequisites that are not currently present on the client device would require more client device OSGi package and OSGi service interface resources than the current OSGi package and OSGi service interface resources of the client device (*Id.*), at least one other OSGi bundle that operates within the resource limitations of the client device for one of the OSGi bundles and one of the prerequisites of the list of the prerequisites that are not currently present on the client device (*Id.*).

Independent claim 10 recites a computer-implemented method for recursively resolving prerequisites for client devices in an Open Service Gateway Initiative (OSGi) framework (Specification, para. 0001, page 1, lines 6-8), comprising: determining, on a server device (Fig. 1 and Fig. 2, element12), prerequisites for an OSGi bundle (Fig. 1, element 18) to be loaded on a client device (Specification, para. 0021, page 9, lines 1-2; and Fig. 1 and Fig. 2, element 14), the prerequisites comprising a set of all OSGi bundles that are necessary for utilizing the OSGi bundle (Specification, para. 0021, page 9, lines 2-4); communicating, prior to communicating any of the OSGi bundles to the client device, a list of the prerequisites from the server device to the client device (Specification, para. 0022, page 9, lines 9-10; and Fig. 1 and Fig. 2, element 14); receiving a response from the client device (Specification, para. 0022, page 9, lines 18-20; and Fig. 1 and Fig. 2, element 14), wherein the response identifies any resource limitations of the client device determined by the client device based on a comparison of the list of the prerequisites and current OSGi package and OSGi service interface resources of the client device (Specification, para. 0022, page 9, lines 11-20), the resource limitations comprising all prerequisites of the list of the prerequisites (Specification, para. 0032, page 17, line 2, "list of needs") that are not currently present on the client device (*Id.*); caching information derived from the response on the server device (Specification, para. 0022, page 9, lines 20-22); automatically recursively resolving via the server device (Specification, para. 0023, page 10, lines 14-20; and Fig. 1 and Fig. 2, element 12), in response to determining that the list of the prerequisites that are not currently present on the client device would not require more client device OSGi package and OSGi service interface resources than the current OSGi package and OSGi service interface resources of the client device (Specification, para. 0022, page 9, line 22 through page 10, line 7), the prerequisites by recursively identifying a final set of OSGi bundles on the server device that

fulfills the prerequisites within the resource limitations of the client device (*Id.*); and substituting via the server device (Specification, para. 0022, page 10, lines 7-13), in response to determining that the list of the prerequisites that are not currently present on the client device would require more client device OSGi package and OSGi service interface resources than the current OSGi package and OSGi service interface resources of the client device (*Id.*), at least one other OSGi bundle that operates within the resource limitations of the client device for one of the OSGi bundles and one of the prerequisites of the list of the prerequisites that are not currently present on the client device (*Id.*).

Independent claim 16 recites a computerized system for resolving prerequisites for client devices in an Open Service Gateway Initiative (OSGi) framework (Specification, para. 0001, page 1, lines 6-8), comprising: a memory that stores OSGi bundle information (Fig. 2, element 32) at a server device (Fig. 2, element 12); and a processor programmed to execute (Fig. 2, element 30): a prerequisite computation system (Fig. 1 and Fig. 2, element 16) for determining, on the server device (Fig. 1 and Fig. 2, element12), prerequisites for an OSGi bundle (Fig. 1, element 18)to be loaded on a client device (Specification, para. 0021, page 9, lines 1-2; and Fig. 1 and Fig. 2, element 14), the prerequisites comprising a set of all OSGi bundles that are necessary for utilizing the OSGi bundle (Specification, para. 0021, page 9, lines 2-4); a communication system (Fig. 2, element 44) for communicating, prior to communicating any of the OSGi bundles to the client device, a list of the prerequisites from the server device to the client device (Specification, para. 0022, page 9, lines 9-10; and Fig. 1 and Fig. 2, element 14), and for receiving a response from the client device (Specification, para. 0022, page 9, lines 18-20; and Fig. 1 and Fig. 2, element 14), wherein the response identifies any resource limitations of the client device determined by the client device based on a comparison of the list of the prerequisites and current OSGi package and OSGi service interface resources of the client device (Specification, para. 0022, page 9, lines 11-20), the resource limitations comprising all prerequisites of the list of the prerequisites (Specification, para. 0032, page 17, line 2, "list of needs") that are not currently present on the client device (*Id.*); and a prerequisite resolution system (Fig. 2, element 48) for: automatically recursively resolving via the server device (Specification, para. 0023, page 10, lines 14-20; and Fig. 1 and Fig. 2, element 12), in response to determining that the list of the prerequisites that are not currently present on the client device would not require more client device OSGi package and OSGi service interface resources than

the current OSGi package and OSGi service interface resources of the client device (Specification, para. 0022, page 9, line 22 through page 10, line 7), the prerequisites by identifying a final set of OSGi bundles stored within the memory at the server device that fulfills the prerequisites within the resource limitations of the client device (*Id.*); and substituting via the server device (Specification, para. 0022, page 10, lines 7-13), in response to determining that the list of the prerequisites that are not currently present on the client device would require more client device OSGi package and OSGi service interface resources than the current OSGi package and OSGi service interface resources of the client device (*Id.*), at least one other OSGi bundle that operates within the resource limitations of the client device for one of the OSGi bundles and one of the prerequisites of the list of the prerequisites that are not currently present on the client device (*Id.*).

Independent claim 25 recites a program product stored on a storage medium and executed by a computer for resolving prerequisites for clients devices in an Open Service Gateway Initiative (OSGi) framework (Specification, para. 0001, page 1, lines 6-8), comprising: program code (Specification, para. 0027, page 12, lines 16-18), for determining, on a server device (Fig. 1 and Fig. 2, element12), prerequisites for an OSGi bundle (Fig. 1, element 18) to be loaded on a client device (Specification, para. 0021, page 9, lines 1-2; and Fig. 1 and Fig. 2, element 14), the prerequisites comprising a set of all OSGi bundles that are necessary for utilizing the OSGi bundle (Specification, para. 0021, page 9, lines 2-4); program code (Specification, para. 0027, page 12, lines 16-18) for communicating, prior to communicating any of the OSGi bundles to the client device, a list of the prerequisites from the server device to the client device (Specification, para. 0022, page 9, lines 9-10; and Fig. 1 and Fig. 2, element 14), and for receiving a response from the client device (Specification, para. 0022, page 9, lines 18-20; and Fig. 1 and Fig. 2, element 14), wherein the response identifies any resource limitations of the client device determined by the client device based on a comparison of the list of the prerequisites and current OSGi package and OSGi service interface resources of the client device (Specification, para. 0022, page 9, lines 11-20), the resource limitations comprising all prerequisites of the list of the prerequisites (Specification, para. 0032, page 17, line 2, "list of needs") that are not currently present on the client device (*Id.*); program code (Specification, para. 0027, page 12, lines 16-18) for automatically recursively resolving via the server device (Specification, para. 0023, page 10, lines 14-20; and Fig. 1 and Fig. 2, element 12), in response to determining that the list of the

prerequisites that are not currently present on the client device would not require more client device OSGi package and OSGi service interface resources than the current OSGi package and OSGi service interface resources of the client device (Specification, para. 0022, page 9, line 22 through page 10, line 7), the prerequisites by identifying a final set of OSGi bundles on the server device that fulfills the prerequisites within the resource limitations of the client device (*Id.*); and program code (Specification, para. 0027, page 12, lines 16-18) for substituting via the server device (Specification, para. 0022, page 10, lines 7-13), in response to determining that the list of the prerequisites that are not currently present on the client device would require more client device OSGi package and OSGi service interface resources than the current OSGi package and OSGi service interface resources of the client device (*Id.*), at least one other OSGi bundle that operates within the resource limitations of the client device for one of the OSGi bundles and one of the prerequisites of the list of the prerequisites that are not currently present on the client device (*Id.*).

Appellant argues that certain claims are separately patentable and that the claims within the present application do not stand or fall together.

Independent claim 10 is separately patentable from independent claims 1, 16, and 25.

Dependent claims 3, 4, 5, 6, 7, 8, and 9 depend, either directly or indirectly, from independent claim 1 and are each separately patentable, as will be discussed below. Dependent claims 3, 4, 5, 6, 7, 8, and 9 do not stand or fall together.

Dependent claims 11, 12, 13, 14, and 15 depend, either directly or indirectly, from independent claim 10 and are each separately patentable, as will be discussed below. Dependent claims 11, 12, 13, 14, and 15 do not stand or fall together.

Dependent claims 18, 19, 20, 21, 22, 23, and 24 depend, either directly or indirectly, from independent claim 16 and are each separately patentable, as will be discussed below. Dependent claims 18, 19, 20, 21, 22, 23, and 24 do not stand or fall together.

Dependent claims 27, 28, 29, 30, 31, and 32 depend, either directly or indirectly, from independent claim 25 and are each separately patentable, as will be discussed below. Dependent claims 27, 28, 29, 30, 31, and 32 do not stand or fall together.

Dependent claim 3 recites the method of claim 1, further comprising loading the final set of OSGi bundles on the client device if the prerequisites are completely resolved (Specification, para. 0005, page 3, lines 18-19). Dependent claim 11 is similar to claim 3 and recites the method

of claim 10, further comprising loading the final set of OSGi bundles on the client device if the prerequisites are completely resolved (Specification, para. 0005, page 3, lines 18-19). Dependent claim 18 is similar to claim 3 and claim 11 and recites the system of claim 16, where the processor is further programmed to execute (Fig. 2, element 30) a bundle loading system (Fig. 2, element 50) for loading the final set of OSGi bundles on the client device if the prerequisites are completely resolved (Specification, para. 0005, page 3, lines 18-19). Dependent claim 27 is similar to claim 3, claim 11, and claim 18 and recites the program product of claim 25, further comprising program code (Specification, para. 0027, page 12, lines 16-18) for loading the final set of OSGi bundles on the client device if the prerequisites are completely resolved (Specification, para. 0005, page 3, lines 18-19).

Claims 3, 11, 18, and 27 stand or fall together.

Dependent claim 4 recites the method of claim 3, wherein the loading comprises the server device instructing the client device to load the final set of OSGi bundles in a particular order (Specification, para. 0023, page 11, lines 3-5). Dependent claim 12 is similar to claim 4 and recites the method of claim 11, wherein the loading comprises the server device instructing the client device to load the final set of OSGi bundles in a particular order (Specification, para. 0023, page 11, lines 3-5). Dependent claim 19 is similar to claim 4 and claim 12 and recites the system of claim 18, wherein the bundle loading system (Fig. 2, element 50) comprises an instruction passing system (Fig. 2, element 52) for instructing the client device to load the final set of OSGi bundles in a particular order (Specification, para. 0023, page 11, lines 3-5). Dependent claim 28 is similar to claim 4, claim 12, and claim 19 and recites the program product of claim 27, wherein the program code (Specification, para. 0027, page 12, lines 16-18) for loading comprises program code for instructing the client device to load the final set of OSGi bundles in a particular order (Specification, para. 0023, page 11, lines 3-5).

Claims 4, 12, 19, and 28 stand or fall together.

Dependent claim 5 recites the method of claim 1, wherein the prerequisites comprise at least one item selected from a group consisting of a service, a package and a computer resource needed by client device (Specification, para. 0021, page 9, lines 1-4). Dependent claim 13 is similar to claim 5 and recites the method of claim 10, wherein the prerequisites comprise at least one item selected from a group consisting of a service, a package and a computer resource needed by client device (Specification, para. 0021, page 9, lines 1-4). Dependent claim 20 is

similar to claim 5 and claim 13 and recites the system of claim 16, wherein the prerequisites comprise at least one item selected from a group consisting of a service, a package and a computer resource needed by client device (Specification, para. 0021, page 9, lines 1-4). Dependent claim 29 is similar to claim 5, claim 13, and claim 20 and recites the program product of claim 25, wherein the prerequisites comprise at least one item selected from a group consisting of a service, a package and a computer resource needed by client device (Specification, para. 0021, page 9, lines 1-4).

Claims 5, 13, 20, and 29 stand or fall together.

Independent claim 10 is similar to claim 1, but additionally recites caching information derived from the response on the server device (Specification, para. 0022, page 9, lines 20-22). Dependent claim 6 is similar to claim 10 and recites the method of claim 1, further comprising caching information derived from the response on the server device (Specification, para. 0022, page 9, lines 20-22). Dependent claim 21 is similar to claim 10 and claim 6 and recites the system of claim 16, where the processor is further programmed to execute a response caching system (Fig. 2, element 46) for caching information derived from the response within the memory at the server device (Specification, para. 0022, page 9, lines 20-22; and para. 0028, page 13, lines 17-18). Dependent claim 30 is similar to claim 10, claim 6, and claim 21 and recites the program product of claim 25, further comprising program code (Specification, para. 0027, page 12, lines 16-18) for caching the information derived from the response on the server device (Specification, para. 0022, page 9, lines 20-22).

Independent claim 10 and dependent claims 6, 21, and 30 stand or fall together.

Dependent claim 7 recites the method of claim 1, wherein the method is applied in the presence of a low bandwidth or high cost connection between the server device and the client device (Specification, para. 0029, page 14, lines 16-19). Dependent claim 14 is similar to claim 7 and recites the method of claim 10, wherein the method is applied in the presence of a low bandwidth or high cost connection between the server device and the client device (Specification, para. 0029, page 14, lines 16-19).

Claims 7 and 14 stand or fall together.

Dependent claim 8 recites the method of claim 1, wherein the final set of OSGi bundles include OSGi bundles that are identified from a repository accessed by the server device (Specification, para. 0021, page 9, lines 6-7; para. 0026, page, 12, lines 3-5; Fig. 2, element 40).

Dependent claim 22 is similar to claim 8 and recites the system of claim 16, where the memory comprises a repository (Fig. 2, element 40) and wherein the final set of OSGi bundles includes OSGi bundles that are identified from the repository accessed by the server device (Specification, para. 0021, page 9, lines 6-7; para. 0026, page, 12, lines 3-5; Fig. 2, element 40). Dependent claim 31 is similar to claim 8 and claim 22 and recites the program product of claim 25, wherein the final set of OSGi bundles includes OSGi bundles that are identified from a repository accessed by the server device (Specification, para. 0021, page 9, lines 6-7; para. 0026, page, 12, lines 3-5; Fig. 2, element 40).

Claims 8, 22, and 31 stand or fall together.

Dependent claim 9 recites the method of claim 1, further comprising: receiving the prerequisites on the client device (Specification, para. 0027, page 13, lines 5-7); determining whether the client device has the prerequisites (Specification, para. 0027, page 13, lines 7-10), wherein any of the prerequisites that the client device does not have represent the resource limitations (Specification, para. 0027, page 13, lines 13-16); and sending the response to the server device (Specification, para. 0027, page 13, lines 12-13), wherein the response includes the resource limitations (Specification, para. 0027, page 13, lines 13-14). Dependent claim 15 is similar to claim 9 and recites the method of claim 10, further comprising: receiving the prerequisites on the client device (Specification, para. 0027, page 13, lines 5-7); determining whether the client device has the prerequisites (Specification, para. 0027, page 13, lines 7-10), wherein any of the prerequisites that the client device does not have represent the resource limitations (Specification, para. 0027, page 13, lines 13-16); and sending the response to the server device (Specification, para. 0027, page 13, lines 12-13), wherein the response includes the resource limitations (Specification, para. 0027, page 13, lines 13-14). Dependent claim 23 is similar to claim 9 and claim 15 and recites the system of claim 16, where the processor (Fig. 2, element 30) is further programmed to process the response generated via: an analysis system (Fig. 2, element 54) executing on the client device (*Id.*) that determines whether the client device has the prerequisites (Specification, para. 0027, page 13, lines 7-10), wherein any prerequisites that the client device does not have are identified as the resource limitations (Specification, para. 0027, page 13, lines 13-16); and a response system (Fig. 2, element 56) that sends the response from the client device to the server device (Specification, para. 0027, page 13, lines 12-13). Dependent claim 32 is similar to claim 9, claim 15, and claim 23 and recites the program product

of claim 25, further comprising: program code (Specification, para. 0027, page 12, lines 16-18) for determining whether the client device has the prerequisites (Specification, para. 0027, page 13, lines 7-10), wherein any prerequisites that the client device does not have are identified as the resource limitations (Specification, para. 0027, page 13, lines 13-16); and program code (Specification, para. 0027, page 12, lines 16-18) for sending the response from the client device to the server device (Specification, para. 0027, page 13, lines 12-13).

Claims 9, 15, 23, and 32 stand or fall together.

Dependent claim 24 recites the system of claim 16, wherein the system uses SyncML DM protocol for communication between the client device and the server device (Specification, para. 0032, page 16, lines 19-21).

Claim 24 does not stand or fall with any other claim.

6. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

A. Whether claims 1, 3, 5-11, 13-16, 18, 20-23, 25, 27, and 29-32 were properly rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over U.S. Patent Application Publication No. 2003/0023661 to Clohessy et al. (hereinafter "Clohessy), in view of U.S. Patent No. 6,493,871 to McGuire et al. (hereinafter "McGuire").

B. Whether claims 4, 12, 19, and 28 were properly rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Clohessy, in view of U.S. Patent Application Publication No. 2003/0131226 to Spencer et al. (hereinafter "Spencer").

C. Whether claim 24 was properly rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Clohessy, in view of McGuire, and further in view of U.S. Patent Application Publication No. 2005/0004974 to Sharma et al. (hereinafter "Sharma").

D. Whether claims 25 and 27-32 were properly rejected under 35 U.S.C. § 101 as being unpatentable as allegedly directed to non-statutory subject matter.

7. ARGUMENT

A. Introduction

The Patent Office has alleged the Clohessy reference and the McGuire reference to form an obviousness rejection of independent claims 1, 10, 16 and 25. However, the Patent Office has not shown where all the elements of the claims are depicted with sufficient particularity in the references as cited to sustain a *prima facie* case of obviousness.

Regarding the failure to show all elements of the claims, the Patent Office has failed to identify Appellant's claimed "automatically recursively resolving via the server device . . . the prerequisites by identifying a final set of OSGi bundles on the server device that fulfills the prerequisites within the resource limitations of the client device." The Patent Office has cited processing of determining "currently available runtime system resources . . . assuming that all application components already loaded are using their maximum" (CARSRMAX) required runtime system resources of the portable device and whether maximum runtime system resources for a new application component would exceed the CARSRMAX (e.g., currently available system resources) of the portable device, and prohibiting installation of the new application components if CARSRMAX are exceeded. The cited processing may apparently return after removal of a program to re-determine the "currently available runtime system resources" of the portable device and re-compare with CARSRMAX. However, determining currently available runtime system resources is very different from determining the prerequisites themselves for an OSGi bundle. The Clohessy reference itself discloses a single determination of prerequisites in an early part of the disclosed processing and does not disclose returning to re-determine the prerequisites. Further, re-determining the same prerequisites would still not arrive at Appellant's claimed automatically recursively resolving the prerequisites via a server device for an actual OSGi bundle itself. As such, Appellant's claimed subject matter has not been disclosed by the cited references and the present rejections are in clear error for at least these reasons.

The Patent Office cites the McGuire reference against Appellant's claimed "substituting via the server device, . . . at least one other OSGi bundle that operates within the resource limitations of the client device . . . ." The Patent Office admits that the Clohessy reference does not disclose this claimed subject matter and cites the McGuire reference for this admittedly missing subject matter. However, the McGuire reference as cited discloses that a "setup program running on the client computer determines whether some current or earlier versions of those files

required for installation already exist on the client computer, and compiles a download request with a list of files needed" for the update. The Patent Office admits that "the server . . . [sends] the necessary files to the client based on a response from the client on resource deficiency." The Patent Office has further admitted that the "server, in response to the request, prepares update files corresponding to the requested files and downloads them to the client." As such, Appellant's claimed subject matter has not been disclosed by the cited references and the present rejections are in clear error for at least these additional reasons.

Additional elements of Appellant's claims have not been identified, as discussed in more detail below, and the present rejections are in clear error for at least these additional reasons.

In view of the multiple elements of Appellant's claims that are missing from the cited references, Appellant respectfully submits that the Patent Office has over broadened Appellant's claim language in a manner that is not consistent with Appellant's Specification. Further, this over-broadening would not be reasonable to a person of ordinary skill in the art. Accordingly, the Patent Office has unreasonably over-broadened Appellant's claimed subject matter and the present rejections are in clear error for at least these additional reasons.

Modification of the Clohessy reference in an attempt to arrive at Appellant's claimed subject matter would change at least the disclosed operator interaction for determination regarding removal of other applications and would change the re-calculation of the currently available runtime system resources to Appellant's claimed prerequisites (which are different from the disclosed currently available runtime system resources). Such, changes would render the Clohessy reference unsatisfactory for its intended purposes. Accordingly, the Clohessy reference may not be properly modified to arrive at Appellant's claimed subject matter for at least these reasons and the present rejections are in clear error for at least this additional reason.

Modification of the McGuire reference to attempt to arrive at Appellant's claimed subject matter would change at least one fundamental principle of the McGuire reference, namely that it sends the setup program to the client device to execute so that the client device determines whether some current or earlier versions of files required for installation already exist on the client computer, and compiles a download request with a list of files that are needed for the update via the client device. This "client-side" determination of needed "files" would be changed if modified to arrive at Appellant's claimed automated substituting via the "server device" at least one other "OSGi bundle" that operates within the resource limitations of the

client device. The disclosed client is not a server. Further, the disclosed files are not OSGi bundles. Accordingly, the McGuire reference may not be properly combined as alleged without rendering it unsatisfactory for its intended purpose and changing at least these fundamental principles, and the present rejections are in clear error for at least these additional reasons.

The Patent Office's interpretation of the Clohessy reference in combination with the McGuire reference is at least clearly erroneous and is not reasonable to someone skilled in the art. Additionally, the Patent Office has failed to properly consider Appellant's claim language and the differences between Appellant's claim language and the references as cited and the present rejections are in clear error for at least these additional reasons.

The McGuire reference further teaches away from Appellant's claims by disclosing client-side processing for determination of the needed files instead of server-side processing as claimed by Appellant. As such, the present rejections are in clear error for at least this additional reason.

In view of the above, and the detailed discussion below, the Patent Office has improperly combined the references using hindsight to reconstruct the claimed invention by using Appellant's disclosure as a template in clear error. Additionally, the Patent Office has improperly rejected claims 25 and 27-32 under 35 U.S.C. § 101 in clear error.

As such, Appellant requests that the Board reverse the Examiner and instruct the Examiner to allow the claims for these reasons.

B. Summary of the References

1. U.S. Patent Application Publication No. 2003/0023661 to Clohessy et al. (hereinafter "Clohessy")

The Assignee of the present Application is the same Assignee of the Clohessy reference. Appellant respectfully submits that the Clohessy reference as cited is directed to a different problem from that addressed within the present Application. The Clohessy reference is directed to runtime-resource management for a portable device and reservation of runtime resources for applications that are installed on a portable device. (Clohessy, Abstract). As cited, the Clohessy reference discloses that a single determination of prerequisites is performed at step 100 of Figure 4 for one or more new applications to be installed on the portable device. (Clohessy, para. 0038, Fig. 4, as cited). As disclosed within the Clohessy reference and as summarized below, the

Clohessy reference does not disclose returning to step 100, and as such, does not disclose automatically recursively resolving resources, as alleged, and further does not disclose automatically recursively resolving resources via a server device as claimed. For context, the Patent Office is citing steps 104, 106, 108, 109, 110, 112, with a return to step 104 as allegedly disclosing the claimed subject matter. (Final Office Action dated December 6, 2010, page 7). However, as summarized below, this allegation is in clear error.

At step 102 of Figure 4, a single determination of maximum runtime resources required by a new application component is made, which may be a sum of required resources if more than one new application component is to be installed. (Clohessy, para. 0039, Fig. 4, as cited). At step 104, "currently available runtime system resources . . . assuming that all application components already loaded are using the maximum" (CARSRMAX) required runtime system resources of the portable device are determined. (*Id.*, para. 0041, Fig. 4, as cited). At step 106, CARSRMAX is compared to the maximum required runtime resources for the new application component. (*Id.*, para. 0042, Fig. 4, as cited). At step 108, a decision is made based on the comparison made in step 106 as to whether the CARSRMAX is equal to or exceeds the maximum required runtime resources. (*Id.*, para. 0043, Fig. 4, as cited). At step 109, if the maximum required runtime resources exceed the CARSRMAX, then the identified new application component(s) will be prohibited from loading into the portable device. (*Id.*, Fig. 4, as cited).

As such, the first portion of the cited processing beginning with step 104 is directed to determining "currently available runtime system resources" and whether the new application components would require runtime resources that exceed the CARSRMAX for the portable device, and prohibiting installation of the new application components if CARSRMAX are exceeded. The disclosed determination of "currently available runtime system resources" of the portable device is different from Appellant's claimed resolving prerequisites for an OSGi bundle, both as defined by Appellant and as disclosed by the Clohessy reference within step 100. As summarized below, the process may return to step 104, but is not disclosed to return to step 100. As such, the Clohessy reference does not disclose automatically recursively resolving prerequisites, as alleged, and further does not disclose automatically recursively resolving prerequisites via a server device as claimed.

At step 110, the Clohessy reference discloses that "the operator of the portable device will make a decision regarding whether the identified one or more new application components should be loaded despite the insufficiency of the CARSRMAX." (*Id.*, para. 0044, Fig. 4, as cited, emphasis added). As such, in addition to not disclosing recursive resolution of prerequisites, the cited loop is not automated as claimed and requires operator intervention.

At step 112, "[i]f the operator decides to load the identified one or more new application components, . . . one or more application components previously loaded into the portable device are removed from the portable device at the direction of the operator and the maximum required runtime resources reserved for use by the one or more previously loaded application components are released." (*Id.*, para. 0044, Fig. 4, as cited, emphasis added). The processing of Figure 4, then returns to step 104 to determine whether enough runtime resources are available to load the application. (*Id.*, Fig. 4, as cited).

In contrast to Appellant's claimed subject matter, the Clohessy reference as cited appears to allow an operator to remove a program at the operator's discretion or to allow a program to be loaded despite insufficient resources, and in either case only in response to operator intervention. Removing a program to allow another program to be loaded or allowing a program to be loaded despite insufficient resources are both readily distinguishable from Appellant's claimed automatically recursively resolving prerequisites. Further, determining whether enough runtime resources are available after removing one or more previously loaded application components is readily distinguishable from Appellant's claimed "automatically recursively resolving via the server device . . . prerequisites by identifying a final set of OSGi bundles on the server device that fulfills the prerequisites within the resource limitations of the client device." Additionally, the operator intervention does not disclose automated processing by the server.

2. U.S. Patent No. 6,493,871 to McGuire et al. (hereinafter "McGuire")

The McGuire reference is directed to downloading software update data for installing a revised software product on a client. As cited, a setup program running on client computer determines whether a current or earlier version of files required for installation already exists on a client computer and compiles a download request with a list of files that are needed for the update. (McGuire, column 4, lines 21-27, as cited, emphasis added). As such, in contrast to Appellant's claimed subject matter, the McGuire reference does not disclose a server resolving

prerequisites. Accordingly, the cited server device does not operate "in response to determining that the list of the prerequisites that are not currently present on the client device would require more client device OSGi package and OSGi service interface resources than the current OSGi package and OSGi service interface resources of the client device," as claimed by Appellant.

The McGuire reference further discloses that "[t]he second server, in response to the request, prepares update files corresponding to the requested files and downloads them to the client. The downloaded files may or may not be exactly the requested files. Using the downloaded files, the setup program updates the existing files to create the set of installation files for the revised software product on the client computer. The revised software product is then installed on the client computer." (McGuire, column 4, lines 30-37, emphasis added).

As such, the McGuire reference discloses that a file may not be the same file, but provides no enablement to guide a person of skill in the art as to how the server may select such a file. As discussed above, this single file replacement is not performed by the cited server "in response to determining that the list of the prerequisites that are not currently present on the client device would require more client device OSGi package and OSGi service interface resources than the current OSGi package and OSGi service interface resources of the client device," as claimed by Appellant. Further, a file is different from Appellant's claimed substituting at least one other OSGi bundle that operates within the resource limitations of the client device. The disclosed file of the McGuire reference is further not believed to be disclosed to have information associated with it for consideration of resource limitations of the client computer. Accordingly, the McGuire reference is not believed to be particularly relevant to Appellant's claimed subject matter.

3. U.S. Patent Application Publication No. 2003/0131226 to Spencer et al. (hereinafter "Spencer")

The Spencer reference is directed to a distributed configuration management system. The Patent Office has cited the Background Section of the Spencer reference, specifically that a "user needs to possess the skill to determine which components to download to his or her computer, where to obtain the components and how to install and configure the components. In some cases, a user may download several components that will have to be installed in a particular order . . . ." (Spencer, para. 0004, as cited). As such, the Spencer reference appears to disclose

requiring a user to interact to download files in a particular order. Appellant finds no disclosure of a server instructing a client device to download files in a particular order as claimed. As such, the Spencer reference is not believed to be particularly relevant to Appellant's claimed subject matter.

4. U.S. Patent Application Publication No. 2005/0004974 to Sharma et al. (hereinafter "Sharma")

The Sharma reference is directed to a device model agent. As cited, the Sharma reference describes two standards, OSGi and SyncML Device Management. With respect to OSGi, the Sharma reference as cited discloses "OSGi . . . allows a collection of local, network connected devices to communicate with remote servers and download and run modular services." (Sharma, para. 0097, as cited). As such, this portion of the Sharma reference appears to disclose use of OSGi to allow client devices to retrieve/download modular services from a server. Appellant finds no disclosure of Appellant's claimed system that uses SyncML DM protocol for communication between the client device and the server device within this cited portion of the Sharma reference. With respect to SyncML, the Sharma reference distinguishes the OSGi standard and as cited discloses "SyncML is a released standard focused on the details of keeping mobile devices in synch with some server based sources. The focus in this standard is on things like calendars and appointments. In the last year, this synchronization protocol was extended with the Device Management effort to explicitly support the ability to change service settings on a mobile device and to be able to download services to it." (Sharma, para. 0099, as cited). As such, the Sharma reference appears to disclose that SyncML may be used for synchronization activities for calendars and appointments and to change service settings for a mobile device. Appellant finds no disclosure of Appellant's claimed system that uses SyncML DM protocol for communication between the client device and the server device, for example, for communicating, prior to communicating any of the OSGi bundles to the client device, a list of the prerequisites from the server device to the client device using SyncML, within this cited portion of the Sharma reference. As such, the Sharma reference as cited is not believed to be particularly relevant to Appellant's claimed subject matter.

C. The Standards for Establishing Obviousness

Section 103(a) of the Patent Act provides the statutory basis for an obviousness rejection and reads as follows:

> A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Courts have interpreted 35 U.S.C. § 103(a) as being a question of law based on underlying facts. As the Federal Circuit stated:

> Obviousness is ultimately a determination of law based on underlying determinations of fact. These underlying factual determinations include: (1) the scope and content of the prior art; (2) the level of ordinary skill in the art; (3) the differences between the claimed invention and the prior art; and (4) the extent of any proffered objective indicia of nonobviousness.

Monarch Knitting Mach. Corp. v. Sulzer Morat GmBH, 139 F.3d 877, 881 (Fed. Cir. 1998) (internal citations omitted).

What a reference teaches is a question of fact reviewed under the clearly erroneous standard. *In Re Chu*, 66 F.3d 292, 298 (Fed. Cir. 1995) (citing *In re Beattie*, 974 F.2d 1309, 1311, 24 U.S.P.Q.2d (BNA) 1040, 1041 (Fed. Cir. 1992)).

The burden is on the Patent Office to establish a *prima facie* case of obviousness. *In re Fine*, 837 F.2d 1071, 1074 (Fed. Cir. 1988). "To reach a proper conclusion under § 103, the decisionmaker must step backward in time and into the shoes worn by [a person having ordinary skill in the art] when the invention was unknown and just before it was made." *Id.* at 1073 (quoting *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 1566 (Fed. Cir. 1987) (paraphrase in *Fine*'s original text)).

Furthermore, "[i]t is impermissible to use the claimed invention as an instruction manual or 'template' to pieced [sic] together the teachings of the prior art so that the claimed invention is rendered obvious . . . . 'one cannot use a hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.' " *In Re Fritch*, 972 F.2d 1260, 1266 (Fed. Cir. 1992), citing *In re Gorman*, 933 F.2d 982, 987 and quoting *In re Fine*, 837 F.2d at 1075.

For a *prima facie* case of obviousness, the combination must teach or fairly suggest all the claim elements. *In re Royka*, 490 F.2d 981 (CCPA 1974); MPEP § 2143.03. When determining whether the references or combination of references teaches an element, the Patent Office is entitled to interpret the claim elements broadly. However, this interpretation is limited in several respects. First, the interpretation is made in light of the specification. Further, the interpretation must be reasonable to someone skilled in the art. MPEP § 2111.

For the Patent Office to combine references in an obviousness rejection, the Patent Office must first establish *prima facie* obviousness by showing where each and every element is taught or suggested in the combined references. MPEP § 2143.03. This is fundamental to an analysis under the factual inquires required by *Graham v. John Deere*, 383 U.S. 1 (Supreme Court, 1966), as a part of identification of the scope and content of the prior art. "[R]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.'" *KSR*, 127 S. Ct. 1727 at 1741, 82 USPQ2d at 1396 (U.S. 2007) quoting *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006). The Patent Office must provide articulated reasoning as to why one of ordinary skill in the art would find the claims as a whole to be obvious in the absence of the claim features not present in the prior art. (See *In re Kahn*, 441 F.3d 977, 988 (CAFC, 2006), as explicitly endorsed by the Supreme Court). Such an analysis is required to satisfy the factual inquiry ascertaining the differences between the prior art and the claims at issue.

However, if a claim element is missing after the combination is made, then the combination does not render obvious the claimed invention, and the claims are allowable. As stated by the Federal Circuit, "[if] the PTO fails to meet this burden, then the Appellant is entitled to the patent." *In re Glaug,* 283 F.3d 1335, 1338 (Fed. Cir. 2002).

Further, "[d]uring patent examination, the pending claims must be "given their broadest reasonable interpretation consistent with the specification." (MPEP 2111 quoting The Federal Circuit's *en banc* decision in *Phillips v. AWH Corp.*, 415 F.3d 1303, 75 USPQ2d 1321 (Fed. Cir. 2005), emphasis added). The Patent Office is further reminded that "[t]he Patent and Trademark Office ('PTO') determines the scope of claims in patent applications not solely on the basis of the claim language, but upon giving claims their broadest reasonable construction 'in light of the specification as it would be interpreted by one of ordinary skill in the art.' " (MPEP 2111 quoting

In re Am. Acad. of Sci. Tech. Ctr., 367 F.3d 1359, 1364[, 70 USPQ2d 1827] (Fed. Cir. 2004), as quoted by *Phillips v. AWH Corp.*, 415 F.3d 1303, 75 USPQ2d 1321 (Fed. Cir. 2005), emphasis added).

Additionally, "[i]f [a] proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification." (MPEP § 2143.01, V citing *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984), emphasis added). Further, if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. (MPEP § 2143.01, VI citing *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959)). Additionally, a rationale to support a conclusion that a claim would have been obvious is that all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded nothing more than predictable results to one of ordinary skill in the art. (MPEP § 2143.02 citing *KSR International Co. v. Teleflex Inc.*, 550 U.S. ___, ___, 82 USPQ2d 1385, 1395 (2007); *Sakraida v. AG Pro, Inc.*, 425 U.S. 273, 282, 189 USPQ 449, 453 (1976); *Anderson's-Black Rock, Inc. v. Pavement Salvage Co.*, 396 U.S. 57, 62-63, 163 USPQ 673, 675 (1969); *Great Atlantic & P. Tea Co. v. Supermarket Equipment Corp.*, 340 U.S. 147, 152, 87 USPQ 303, 306 (1950), emphasis added).

If the Patent Office fails to establish obviousness, then the applicant is entitled to a patent. *In re Glaug*, 283 F.3d 1335, 1338 (Fed. Cir. 2002).

D. Claims 1, 10, 16, and 25 Are Not Obvious and Were Not Properly Rejected Under 35 U.S.C. § 103(a) as Being Unpatentable Over Clohessy in View of McGuire

Claims 1, 10, 16 and 25 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Clohessy in view of McGuire. For the Patent Office to establish *prima facie* obviousness, the Patent Office must show where each and every claim element can be found in the cited of references. MPEP § 2143.03.

The Patent Office has not shown where each and every element is taught or suggested in the combined references. Accordingly, obviousness has not been established. The present

rejection shows clear error of fact, clear error by failing to properly consider Appellant's claim language, clear error by failing to properly determine the differences between Appellant's claim language and the disclosure of the cited Clohessy reference, and shows unreasonable over-broadening of Appellant's claim language. Based upon the multiple deficiencies in the present rejections, the Patent Office appears to have used impermissible hindsight recreation to combine embodiments to deprecate Appellant's claimed subject matter.

1. Multiple Elements of Claim 1, Claim 10, Claim 16, and Claim 25 are Missing from Clohessy in Combination with McGuire

The Patent Office has misinterpreted Appellant's claim language and the cited references, and thereby fails to properly show where all elements of the claims are disclosed. Appellant addresses elements that are missing from the cited references below in an order convenient for discussion.

a. Clohessy in Combination with McGuire Does Not Disclose Automatically Recursively Resolving via the Server Device, in Response to Determining that the List of the Prerequisites that are Not Currently Present on the Client Device Would Not Require More Client Device OSGi Package and OSGi Service Interface Resources than the Current OSGi Package and OSGi Service Interface Resources of the Client Device, the Prerequisites by Identifying a Final Set of OSGi Bundles on the Server Device that Fulfills the Prerequisites within the Resource Limitations of the Client Device

The claimed subject matter provides a method for resolving prerequisites for client devices in an Open Service Gateway Initiative (OSGi) framework. Claim 1 recites, among other things, "automatically recursively resolving via the server device, in response to determining that the list of the prerequisites that are not currently present on the client device would not require more client device OSGi package and OSGi service interface resources than the current OSGi package and OSGi service interface resources of the client device, the prerequisites by identifying a final set of OSGi bundles on the server device that fulfills the prerequisites within the resource limitations of the client device . . . ." Claim 10 recites a computer implemented method capable of performing operations similar to those of claim 1. Claim 16 recites a computerized system capable of performing operations similar to those of claim 1. Claim 25 recites a program product capable of performing operations similar to those of claim 1. Claims

10, 16, and 25 were rejected on the same basis as claim 1. (Final Office Action dated December 6, 2010, pages 5-10). Accordingly, the discussion below applies at least equally to claims 10, 16, and 25 with further consideration for the unique features of each of these claims. Claim 10 is also argued below as separately patentable under a separate heading.

As a preliminary matter, the Patent Office admits that the Clohessy reference does not disclose resolving, in response to determining that the list of the prerequisites that are not currently present on the client device . . . , the prerequisites by identifying a final set . . . on the server device that fulfills the prerequisites within the resource limitations of the client device. (Final Office Action dated December 6, 2010, pages 7-8). As such, the majority of this claimed subject matter is admittedly not disclosed by the Clohessy reference. Appellant addresses the allegation that this admittedly missing subject matter is disclosed within the McGuire reference under a separate heading below. However, it is noted that the allegation with respect to the McGuire reference is in clear error as discussed under the separate heading below.

The Patent Office alleges that Appellant's claimed automatically recursively resolving via the server device the prerequisites of claims 1, 10, 16, and 25 are disclosed within Figure 4 of the Clohessy reference and within paragraph [0038]. (Final Office Action dated December 6, 2010, page 7). The Patent Office specifically cites a loop of steps 104-106-108-109-110-112 and back to 104. *Id.* As such, the Patent Office admits that the cited process returns to step 104 and not to step 100. Figure 4 of the Clohessy reference shows clearly that the process returns to step 104 and not to step 100.

Appellant has reviewed the cited portions of the Clohessy reference and finds that the Patent Office has misinterpreted the actual disclosure of the Clohessy reference, thereby failing to properly consider Appellant's claim language and the differences between Appellant's claim language and the references as cited. Further, the Patent Office's interpretation of the Clohessy reference in combination with the McGuire reference is not reasonable to someone skilled in the art.

First, as discussed above with the Summary of the References Section (Section 7.B.1 above), the Clohessy reference discloses that a single determination of prerequisites is performed at step 100 of Figure 4. (Clohessy, para. 0038, Fig. 4, as cited). As discussed in more detail below, this single step of determining prerequisites is different from Appellant's claimed recursive resolution. Further, it can be easily seen from the cited Figure 4 that the disclosed

process does not return to step 100. As discussed above, the Patent Office admits that the cited process returns to step 104. As such, the process of Figure 4 is not disclosed to repeatedly perform the processing at step 100. Further, the processing at step 100 is not disclosed to include automated recursive resolving prerequisites via the server device or automated recursive resolving prerequisites via the server device in response to the lengthy "determining" phrase quoted above (omitted for brevity here due to the length and the multiple elements of this claim phrase), as claimed by Appellant. Accordingly, the present rejection is in clear error for at least these reasons.

Second, a fundamental principle of the Clohessy reference would be changed if the Clohessy reference were modified to attempt to arrive at the presently-claimed subject matter. The Clohessy reference as cited discloses the single step of determining prerequisites performed at step 100 of Figure 4. *Id.* As also discussed above in the Summary of the References Section, Figure 4 of the Clohessy reference is directed to prohibiting of loading new application components into the portable device if "currently available runtime system resources . . . assuming that all application components already loaded are using their maximum" (CARSRMAX) required runtime system resources of the portable device are exceeded and removing one or more Applications if the operator decides to load the identified one or more new application components (step 112). (*Id.*, paras. 0043 and 0044, Fig. 4, as cited).

Further, the disclosed process actually returns to step 104 to determine whether enough currently available runtime system resources are available after removal of the application component(s) to load the new application. (*Id.*, Fig. 4, as cited). The first portion of the cited processing beginning with step 104 is directed to determining "currently available runtime system resources" and whether the new application components would require runtime system resources that exceed the CARSRMAX for the portable device, and prohibiting installation of the new application components if CARSRMAX is exceeded. *Id.*

However, determining whether currently available runtime system resources are available to load an application is very different from Appellant's claimed recursively resolving the prerequisites themselves for an OSGi bundle. Additionally, the Clohessy reference separately treats the determination of prerequisites within step 100 prior to the disclosed processing beginning with step 104. One or more repeated determinations of currently available runtime system resources in response to removal of one or more programs still does not arrive at

Applicant's automatically recursively resolving prerequisites for an OSGi bundle itself. The cited disclosure is significantly different from Appellant's claimed subject matter and the present rejections are in clear error for at least these additional reasons.

In view of the discussion above, the Patent Office appears to have unreasonably over-broadened Appellant's claim language to arrive at the present rejections. The Patent Office is respectfully reminded that "[d]uring patent examination, the pending claims must be "given their broadest reasonable interpretation consistent with the specification." (MPEP 2111 quoting The Federal Circuit's *en banc* decision in *Phillips v. AWH Corp.*, 415 F.3d 1303, 75 USPQ2d 1321 (Fed. Cir. 2005), emphasis added). The Patent Office is further reminded that "[t]he Patent and Trademark Office ('PTO') determines the scope of claims in patent applications not solely on the basis of the claim language, but upon giving claims their broadest reasonable construction 'in light of the specification as it would be interpreted by one of ordinary skill in the art.' " (MPEP 2111 quoting *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364[, 70 USPQ2d 1827] (Fed. Cir. 2004), as quoted by *Phillips v. AWH Corp.*, 415 F.3d 1303, 75 USPQ2d 1321 (Fed. Cir. 2005), emphasis added).

By citing disclosure of a repeating process for removal of applications from a portable device and re-determining currently available runtime system resources (which are different from prerequisites both as claimed by Appellant and as disclosed by the Clohessy reference) against Appellant's claimed automatically recursively resolving via the server device the prerequisites by identifying a final set of OSGi bundles on the server device that fulfills the prerequisites within the resource limitations of the client device, the Patent Office has over broadened Appellant's claim language in a manner that is not consistent with Appellant's Specification. Further, this over-broadening would not be reasonable to a person of ordinary skill in the art. Accordingly, the Patent Office has unreasonably over-broadened Appellant's claimed subject matter in clear error.

Additionally, a person of skill in the art would not be motivated to change the Clohessy reference to repeatedly resolve prerequisites at least because a change would add processing time to the disclosed process and would require additional development time. Additionally, such a change to the Clohessy reference is not believed to provide an improvement to the disclosed process. Accordingly, the Clohessy reference does not disclose a system that is ready for improvement or that would be improved by Appellant's presently-claimed subject matter.

Further, though Appellant does not concede that such a modification is practical, repeating the resolution of prerequisites at step 100 is different from Appellant's claimed "recursively" resolving prerequisites, which has not been disclosed by the cited references. Appellant defines that recursive resolution is directed to situations where prerequisites themselves have prerequisites and repeatedly resolving these prerequisites of prerequisites recursively until all prerequisites are resolved or until no other combinations of bundles remain that can provide all needed packages and services that are missing on client device within the resource limitations of client device. (Specification, para. 0023, page 10, lines 15-18). Appellant teaches that "[r]ecursive resolution is especially useful since any quantity or hierarchy of prerequisites might need resolution (e.g., other OSGi bundles 20 could themselves have prerequisites)." (Specification, para. 0023, page 10, lines 19-20). As such, Appellant's claimed automated recursive resolution of prerequisites is different from repeating the same determination over and over, which would occur if the Clohessy reference were modified in an attempt to arrive at Appellant's claimed subject matter.

The Patent Office has also unreasonably over-broadened Appellant's claim language by citing disclosure of a single determination of prerequisites that is not disclosed to be recursive against Appellant's claimed automatically recursively resolving via the server device the prerequisites by identifying a final set of OSGi bundles on the server device that fulfills the prerequisites within the resource limitations of the client device. This interpretation is not consistent with Appellant's Specification. Further, this over-broadening would not be reasonable to a person of ordinary skill in the art. Accordingly, the Patent Office has unreasonably over-broadened Appellant's claimed subject matter in this instance in clear error.

Additionally, even if the Clohessy reference were modified to return to step 100 to determine the prerequisites, a proposition to which Appellant does not concede would be reasonable to a person of skill, it is believed that the prerequisites would be the same prerequisites determined the first time without any change. Accordingly, such a modification still would not arrive at Appellant's claimed subject matter. And, if the Clohessy reference were modified to change the disclosed calculation of the currently available runtime resources at step 104, such a change would be a change to a fundamental principle of operation of the Clohessy reference and the Clohessy reference would be rendered unsatisfactory for at least this intended purpose. Further, if the Clohessy reference were modified to an automated process as claimed

by Appellant, again a proposition to which Appellant does not concede would be reasonable to a person of skill, the disclosed operator interaction for determination regarding removal of other applications would be destroyed.

The Patent Office is respectfully reminded that "[i]f [a] proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification." (MPEP § 2143.01, V citing *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984), emphasis added). Further, if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. (MPEP § 2143.01, VI citing *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959)). Additionally, a rationale to support a conclusion that a claim would have been obvious is that all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded nothing more than predictable results to one of ordinary skill in the art. (MPEP § 2143.02 citing *KSR International Co. v. Teleflex Inc.*, 550 U.S. ___, ___, 82 USPQ2d 1385, 1395 (2007); *Sakraida v. AG Pro, Inc.*, 425 U.S. 273, 282, 189 USPQ 449, 453 (1976); *Anderson's-Black Rock, Inc. v. Pavement Salvage Co.*, 396 U.S. 57, 62-63, 163 USPQ 673, 675 (1969); *Great Atlantic & P. Tea Co. v. Supermarket Equipment Corp.*, 340 U.S. 147, 152, 87 USPQ 303, 306 (1950), emphasis added).

As discussed above, the Patent Office has not identified all of Appellant's claim elements and the present rejection is in clear error for these reasons. Further, modification of the Clohessy reference in an attempt to arrive at Appellant's claimed subject matter would change at least two fundamental principles of operation of the Clohessy reference as discussed above and would render it unsatisfactory for its intended purposes. Accordingly, the Clohessy reference may not be properly modified to arrive at Appellant's claimed subject matter for at least these reasons.

Appellant provides additional arguments in detail below, but believes that the discussion above renders the rejection of Appellant's claims to be in clear error and that all other allegations are moot in view of the errors discussed above.

As previously discussed in the Response filed April 5, 2010, and the Response filed September 21, 2010, the Clohessy reference discloses that "[a]t step 110, the operator of the portable device will make a decision regarding whether the identified one or more new

application components should be loaded despite the insufficiency of the CARSRMAX." (Clohessy, para. 0044, emphasis added). As such, in contrast to Appellant's claimed subject matter, the Clohessy reference as cited appears to allow an operator of a portable device to remove a program at the operator's discretion or to allow a program to be loaded despite insufficient resources, and in either case only in response to operator intervention via the portable device. Appellant respectfully submits that removing a program to allow another program to be loaded or allow a program to be loaded despite insufficient resources are both readily distinguishable from Appellant's claimed automatically recursively resolving prerequisites for an OSGi bundle to be loaded on a client device that comprise a set of all OSGi bundles that are necessary for utilizing the OSGi bundle.

Further, the Clohessy reference makes clear that the operator of the portable device intervenes to make decisions. The Clohessy reference also makes clear that it is the user of the "portable device" that operates to make decisions, and not Appellant's claimed "server." A user of a portable device is not equivalent to Appellant's claimed server. As such, the present rejection is in clear error for these several reasons.

The Patent Office alleges in its Response to Arguments section of the Office Action dated June 30, 2010, that "the server side has automatic response" and alleges that the admitted operator assistance on the client side "does not make the operation non-automatic . . . ." (Office Action dated June 30, 2010, page 3). Appellant respectfully submits that this allegation is in clear and arbitrary error. A person of ordinary skill would not find this allegation to be reasonable.

The Patent Office further alleges that "any computer assistance to a process renders it automatic at least in part." *Id.* However, based upon the Patent Office's admission that the Clohessy reference requires an operator to intervene and based upon the actual disclosure of the Clohessy reference that requires the operator to make a decision regarding whether the identified one or more new application components should be loaded despite the insufficiency of the CARSRMAX, Appellant respectfully submits that the Patent Office has over-broadened Appellant's claimed subject matter in a manner that is not consistent with Appellant's Specification. Appellant has disclosed a process performed by a server, and has claimed this processing to be automated. This is very different from manual intervention to determine whether to remove programs and, as discussed above, calculation of "currently available runtime

system resources" is very different from Appellant's claimed automated recursive resolution of prerequisites. As such, this over-broadening of Appellant's claim language would not be reasonable to a person of ordinary skill in the art in view of the teachings of Appellant's Specification. Accordingly, the Patent Office has unreasonably over-broadened Appellant's claimed subject matter in clear error.

Further, the multiple missing elements of Appellant's claims within the cited references and the multiple unreasonable over-broadening actions of Appellant's claimed subject matter further results in a failure of the Patent Office to properly determine the scope of Appellant's claimed subject matter and further results in a failure to properly determine the differences between Appellant's claimed subject matter and the cited disclosure, both of which are in clear error.

Appellant respectfully submits that the "in response to" phrase of Appellant's claim language has not been properly considered, as shown by the Patent Office's dissection of Appellant's claim language to form the present rejections. This additional processing of automatically recursively resolving prerequisites via the server device, in response to determining that the list of the prerequisites that are not currently present on the client device would not require more client device OSGi package and OSGi service interface resources than the current OSGi package and OSGi service interface resources of the client device, has not been shown at least because automated recursive resolution of prerequisites has not been shown.

Further, because the Patent Office has not identified Appellant's claimed automatically recursively resolving via the server device the prerequisites, the Patent Office has also not identified Appellant's claimed "automatically recursively resolving via the server device, . . . the prerequisites by identifying a final set of OSGi bundles on the server device that fulfills the prerequisites within the resource limitations of the client device."

Accordingly, the combination of the Clohessy reference with the McGuire reference does not disclose or suggest automatically recursively resolving via the server device, in response to determining that the list of the prerequisites that are not currently present on the client device would not require more client device OSGi package and OSGi service interface resources than the current OSGi package and OSGi service interface resources of the client device, the prerequisites by identifying a final set of OSGi bundles on the server device that fulfills the prerequisites within the resource limitations of the client device. Further, the Patent Office's

interpretation of the Clohessy reference in combination with the McGuire reference is at least clearly erroneous and is not reasonable to someone skilled in the art. Additionally, the Patent Office has failed to properly consider Appellant's claim language and the differences between Appellant's claim language and the references as cited. Accordingly, the present rejections should be overturned for at least these reasons.

b. McGuire in Combination with Clohessy Does Not Disclose Automatically Recursively Resolving via the Server Device, in Response to Determining that the List of the Prerequisites that are Not Currently Present on the Client Device Would Not Require More Client Device OSGi Package and OSGi Service Interface Resources than the Current OSGi Package and OSGi Service Interface Resources of the Client Device, the Prerequisites by Identifying a Final Set of OSGi Bundles on the Server Device that Fulfills the Prerequisites within the Resource Limitations of the Client Device

The Patent Office alternatively relies upon the McGuire reference for primary citation to portions of Appellant's claim language in combination with admission of non-disclosure within the Clohessy reference.

Claim 1, as noted above, recites, among other things, "automatically recursively resolving via the server device, in response to determining that the list of the prerequisites that are not currently present on the client device would not require more client device OSGi package and OSGi service interface resources than the current OSGi package and OSGi service interface resources of the client device, the prerequisites by identifying a final set of OSGi bundles on the server device that fulfills the prerequisites within the resource limitations of the client device . . . ." Claim 10 recites a computer implemented method capable of performing operations similar to those of claim 1. Claim 16 recites a computerized system capable of performing operations similar to those of claim 1. Claim 25 recites a program product capable of performing operations similar to those of claim 1. Claims 10, 16, and 25 were rejected on the same basis as claim 1. (Final Office Action dated December 6, 2010, pages 5-10). Accordingly, the discussion below applies at least equally to claims 10, 16, and 25 with further consideration for the unique features of each of these claims. Claim 10 is also argued below as separately patentable under a separate heading.

As noted above, the Patent Office admits that the Clohessy reference does not disclose resolving, in response to determining that the list of the prerequisites that are not currently present on the client device . . . , the prerequisites by identifying a final set . . . on the server device that fulfills the prerequisites within the resource limitations of the client device. (Final Office Action dated December 6, 2010, pages 7-8). The Patent Office alleges that the McGuire reference fills the extensive admitted gap in the disclosure of the Clohessy reference and that the McGuire reference discloses resolving via the server device, in response to determining that the list of the prerequisites that are not currently present on the client device . . . , "the prerequisites by identifying a final set {of software to be sent to the client} on the server that fulfills the prerequisites within the resource limitations of the client device . . . ." (Final Office Action dated December 6, 2010, page 9, emphasis added). As such, the Patent Office admits that the McGuire reference is not directed to OSGi bundles.

The Patent Office further admits that "the server . . . [sends] the necessary files to the client based on a response from the client on resource deficiency." *Id.* The Patent Office has admitted that the "server, in response to the request, prepares update files corresponding to the requested files and downloads them to the client." (Office Action dated June 30, 2010, page 3, Examiner emphasis omitted). As such, the Patent Office admits that the server does not determine a list of prerequisites as claimed by Appellant, and that the server operates to provide the files requested within the message received from the client device.

Appellant has studied the cited portions of the McGuire reference as cited and finds that the McGuire reference discloses that a "setup program running on the client computer determines whether some current or earlier versions of those files required for installation already exist on the client computer, and compiles a download request with a list of files needed" for the update. (McGuire, column 4, lines 21-27, as cited, emphasis added). As such, in contrast to Appellant's claimed subject matter, the McGuire reference does not disclose a server resolving prerequisites. Accordingly, the cited server device does not operate "in response to determining that the list of the prerequisites that are not currently present on the client device would require more client device OSGi package and OSGi service interface resources than the current OSGi package and OSGi service interface resources of the client device," as claimed by Appellant and the present rejection is in clear error for at least these additional reasons.

Accordingly, even if the Patent Office were to rely upon the McGuire reference as a primary citation, the combination of the Clohessy reference with the McGuire reference does not disclose or suggest automatically recursively resolving via the server device, in response to determining that the list of the prerequisites that are not currently present on the client device would not require more client device OSGi package and OSGi service interface resources than the current OSGi package and OSGi service interface resources of the client device, the prerequisites by identifying a final set of OSGi bundles on the server device that fulfills the prerequisites within the resource limitations of the client device. Further, the Patent Office's interpretation of the Clohessy reference in combination with the McGuire reference is at least clearly erroneous and is not reasonable to someone skilled in the art. Additionally, the Patent Office has failed to properly consider Appellant's claim language and the differences between Appellant's claim language and the references as cited. Accordingly, the present rejections should be overturned for at least these reasons.

c. Clohessy in Combination with McGuire Does Not Disclose Substituting via the Server Device, in Response to Determining that the List of the Prerequisites that are Not Currently on the Client Device Would Require More Client Device OSGi Package and OSGi Service Interface Resources than the Current OSGi Package and OSGi Service Interface Resources of the Client Device, At Least One Other OSGi Bundle that Operates Within the Resource Limitations of the Client Device

Claim 1 additionally recites, among other things, "substituting via the server device, in response to determining that the list of the prerequisites that are not currently present on the client device would require more client device OSGi package and OSGi service interface resources than the current OSGi package and OSGi service interface resources of the client device, at least one other OSGi bundle that operates within the resource limitations of the client device for one of the OSGi bundles and one of the prerequisites of the list of the prerequisites that are not currently present on the client device." Claim 10 recites a computer implemented method capable of performing operations similar to those of claim 1. Claim 16 recites a computerized system capable of performing operations similar to those of claim 1. Claim 25 recites a program product capable of performing operations similar to those of claim 1. Claims 10, 16, and 25 were rejected on the same basis as claim 1. (Final Office Action dated December

6, 2010, pages 5-10). Accordingly, the discussion below applies at least equally to claims 10, 16, and 25 with further consideration for the unique features of each of these claims. Claim 10 is also argued below as separately patentable under a separate heading.

The Patent Office admits that the Clohessy reference does not disclose this claimed subject matter. (Final Office Action dated December 6, 2010, pages 7-8). The Patent Office alleges that the McGuire reference fills the extensive admitted gap in the disclosure of the Clohessy reference. (Final Office Action dated December 6, 2010, page 9).

However, the Patent Office admits that "the server . . . [sends] the necessary files to the client based on a response from the client on resource deficiency." *Id.* The Patent Office has further admitted that the "server, in response to the request, prepares update files corresponding to the requested files and downloads them to the client." (Office Action dated June 30, 2010, page 3, Examiner emphasis omitted). As such, the Patent Office admits that the server does not determine a list of prerequisites as claimed by Appellant, and that the server operates to provide the files requested within the message received from the client device.

Appellant has studied the cited portions of the McGuire reference as cited and finds that the McGuire reference discloses that a "setup program running on the client computer determines whether some current or earlier versions of those files required for installation already exist on the client computer, and compiles a download request with a list of files needed" for the update. (McGuire, column 4, lines 21-27, as cited, emphasis added). As such, in contrast to Appellant's claimed subject matter, the McGuire reference does not disclose a server that operates "in response to determining that the list of the prerequisites that are not currently present on the client device would require more client device OSGi package and OSGi service interface resources than the current OSGi package and OSGi service interface resources of the client device," as claimed by Appellant. Further, the Patent Office has not identified Appellant's claimed substituting in response to such a determination, as claimed by Appellant and the present rejection is in clear error for at least these additional reasons.

Further, modification of the McGuire reference to attempt to arrive at Appellant's claimed subject matter would change at least one fundamental principle of the McGuire reference, namely that it sends the setup program to the client device to execute to determine whether some current or earlier versions of files required for installation already exist on the client computer, and compiles a download request with a list of files that are needed for the

update via the client device. This "client-side" determination of needed "files" would be changed if modified to arrive at Appellant's claimed automated substituting via the "server device" at least one other "OSGi bundle" that operates within the resource limitations of the client device. The disclosed client is not a server. Further, the disclosed files are not OSGi bundles. Accordingly, the McGuire reference may not be properly combined as alleged without rendering it unsatisfactory for its intended purpose and the present rejection is in clear error for at least these additional reasons.

The Patent Office is reminded that "[i]f [a] proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification." (MPEP § 2143.01, V citing *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984), emphasis added). If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. (MPEP § 2143.01, VI citing *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959)).

The Patent Office cites the McGuire reference for disclosure that "[t]he second server, in response to the request, prepares update files corresponding to the requested files and downloads them to the client. The downloaded files may or may not be exactly the requested files. Using the downloaded files, the setup program updates the existing files to create the set of installation files for the revised software product on the client computer. The revised software product is then installed on the client computer." (McGuire, column 4, lines 30-37, emphasis added).

As such, the McGuire reference discloses that a file may not be the same file, but provides no enablement to guide a person of skill in the art as to how the server may select such a file. As discussed above, this single file replacement is not performed by the cited server "in response to determining that the list of the prerequisites that are not currently present on the client device would require more client device OSGi package and OSGi service interface resources than the current OSGi package and OSGi service interface resources of the client device," as claimed by Appellant. Further, an update file is different from Appellant's claimed substituting at least one other OSGi bundle that operates within the resource limitations of the client device. The disclosed installation file is further not believed to be disclosed to have

information associated with it for consideration of resource limitations of the client computer, as claimed by Appellant.

Accordingly, the combination of the Clohessy reference with the McGuire reference does not disclose or suggest substituting via the server device, in response to determining that the list of the prerequisites that are not currently present on the client device would require more client device OSGi package and OSGi service interface resources than the current OSGi package and OSGi service interface resources of the client device, at least one other OSGi bundle that operates within the resource limitations of the client device for one of the OSGi bundles and one of the prerequisites of the list of the prerequisites that are not currently present on the client device. Further, the Patent Office's interpretation of the Clohessy reference in combination with the McGuire reference is at least clearly erroneous and is not reasonable to someone skilled in the art. Additionally, the Patent Office has failed to properly consider Appellant's claim language and the differences between Appellant's claim language and the references as cited. Accordingly, the present rejections should be overturned for at least these reasons.

d. Clohessy in Combination with McGuire Does Not Disclose Communicating, Prior to Communicating any of the OSGi Bundles to the Client Device, a List of Prerequisites from the Server to the Client Device

Claim 1 additionally recites, among other things, "communicating, prior to communicating any of the OSGi bundles to the client device, a list of the prerequisites from the server device to the client device . . . ." Claim 10 recites a computer implemented method capable of performing operations similar to those of claim 1. Claim 16 recites a computerized system capable of performing operations similar to those of claim 1. Claim 25 recites a program product capable of performing operations similar to those of claim 1. Claims 10, 16, and 25 were rejected on the same basis as claim 1. (Final Office Action dated December 6, 2010, pages 5-10). Accordingly, the discussion below applies at least equally to claims 10, 16, and 25 with further consideration for the unique features of each of these claims. Claim 10 is also argued below as separately patentable under a separate heading.

The Patent Office admits that the Clohessy reference does not disclose this claimed subject matter. (Final Office Action dated December 6, 2010, page 7). The Patent Office alleges

that the McGuire reference fills the admitted gap in the disclosure of the Clohessy reference by citation to column 4, lines 17-21. (Final Office Action dated December 6, 2010, page 8).

However, the McGuire reference appears to disclose sending a list of files and the setup program to the client device. (McGuire, column 4, lines 17-21, as cited). A list of files is different from a list of prerequisites for an OSGi bundle. As such, the Patent Office has not identified Appellant's claimed communicating, prior to communicating any of the OSGi bundles to the client device, a list of the prerequisites from the server device to the client device and the present rejection is in clear error for at least this additional reason.

Accordingly, the combination of the Clohessy reference with the McGuire reference does not disclose or suggest communicating, prior to communicating any of the OSGi bundles to the client device, a list of the prerequisites from the server device to the client device. Further, the Patent Office's interpretation of the Clohessy reference in combination with the McGuire reference is at least clearly erroneous and is not reasonable to someone skilled in the art. Additionally, the Patent Office has failed to properly consider Appellant's claim language and the differences between Appellant's claim language and the references as cited. Accordingly, the present rejections should be overturned for at least these reasons.

e. Clohessy in Combination with McGuire Does Not Disclose Receiving a Response from the Client Device that Identifies any Resource Limitations of the Client Device Determined by the Client Device Based on a Comparison of the List of Prerequisites and Current OSGi Package and OSGi Service Interface Resources of the Client Device, the Resource Limitations Comprising All Prerequisites of the List of the Prerequisites that are Not Currently Present on the Client Cevice

Claim 1 additionally recites, among other things, "receiving a response from the client device, wherein the response identifies any resource limitations of the client device determined by the client device based on a comparison of the list of the prerequisites and current OSGi package and OSGi service interface resources of the client device, the resource limitations comprising all prerequisites of the list of the prerequisites that are not currently present on the client device . . . ." Claim 10 recites a computer implemented method capable of performing operations similar to those of claim 1. Claim 16 recites a computerized system capable of performing operations similar to those of claim 1. Claim 25 recites a program product capable of

performing operations similar to those of claim 1. Claims 10, 16, and 25 were rejected on the same basis as claim 1. (Final Office Action dated December 6, 2010, pages 5-10). Accordingly, the discussion below applies at least equally to claims 10, 16, and 25 with further consideration for the unique features of each of these claims. Claim 10 is also argued below as separately patentable under a separate heading.

The Patent Office admits that the Clohessy reference does not disclose this claimed subject matter. (Final Office Action dated December 6, 2010, pages 7-8). The Patent Office alleges that the McGuire reference fills the admitted gap in the disclosure of the Clohessy reference by citation to column 4, lines 21-27. (Final Office Action dated December 6, 2010, page 8).

However, McGuire reference appears to disclose that the client device runs the setup program to determine "whether some current or earlier versions of those files required for installation already exist on the client computer, and compiles a download request with a list of files needed for updating the client to provide the required installation files." (McGuire, column 4, lines 21-27, as cited).

However, as discussed above, a list of files is different from Appellant's claimed prerequisites for an OSGi bundle to be loaded on a client device. A list of files is also different from resource limitations of the client device. A list of files is further different from resource limitations of the client device determined by the client device based on a comparison of the list of the prerequisites, which again are different from files, and current OSGi package and OSGi service interface resources of the client device. A list of files is further different from resource limitations that comprise all prerequisites, which again are different from files, of the list of the prerequisites that are not currently present on the client device. As such, the Patent Office has not identified Appellant's claimed receiving a response from the client device, wherein the response identifies any resource limitations of the client device determined by the client device based on a comparison of the list of the prerequisites and current OSGi package and OSGi service interface resources of the client device, the resource limitations comprising all prerequisites of the list of the prerequisites that are not currently present on the client device, and the present rejection is in clear error for at least these additional reasons.

Accordingly, the combination of the Clohessy reference with the McGuire reference does not disclose or suggest receiving a response from the client device, wherein the response

identifies any resource limitations of the client device determined by the client device based on a comparison of the list of the prerequisites and current OSGi package and OSGi service interface resources of the client device, the resource limitations comprising all prerequisites of the list of the prerequisites that are not currently present on the client device. Further, the Patent Office's interpretation of the Clohessy reference in combination with the McGuire reference is at least clearly erroneous and is not reasonable to someone skilled in the art. Additionally, the Patent Office has failed to properly consider Appellant's claim language and the differences between Appellant's claim language and the references as cited. Accordingly, the present rejections should be overturned for at least these reasons.

2. A Fundamental Principle of the Clohessy Reference would be Changed if Modified to Attempt to Arrive at Appellant's Claimed Subject Matter, Which would Render the McGuire Reference Unsatisfactory for its Intended Purpose

The obviousness rejection is additionally deficient because modification of the Clohessy reference to attempt to arrive at Appellant's claimed subject matter would change at least two fundamental principles of the Clohessy reference, thereby rendering the Clohessy reference unsatisfactory for its intended purpose. If the Clohessy reference were modified to return to step 100 to determine the prerequisites, a proposition to which Appellant does not concede would be reasonable to a person of skill, it is believed that the prerequisites would be the same prerequisites determined the first time without any change. Accordingly, such a modification still would not arrive at Appellant's claimed subject matter. And, if the Clohessy reference were modified to change the disclosed calculation of the currently available runtime resources at step 104, such a change would be a change to a fundamental principle of operation of the Clohessy reference and the Clohessy reference would be rendered unsatisfactory for at least this intended purpose.

Further, if the Clohessy reference were modified to an automated process as claimed by Appellant, again a proposition to which Appellant does not concede would be reasonable to a person of skill, the disclosed operator interaction for determination regarding removal of other applications would be destroyed.

The Patent Office is respectfully reminded that "[i]f [a] proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification." (MPEP § 2143.01, V citing *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984), emphasis added). Further, if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. (MPEP § 2143.01, VI citing *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959)). Additionally, a rationale to support a conclusion that a claim would have been obvious is that all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded nothing more than predictable results to one of ordinary skill in the art. (MPEP § 2143.02 citing *KSR International Co. v. Teleflex Inc.*, 550 U.S. ___, ___, 82 USPQ2d 1385, 1395 (2007); *Sakraida v. AG Pro, Inc.*, 425 U.S. 273, 282, 189 USPQ 449, 453 (1976); *Anderson's-Black Rock, Inc. v. Pavement Salvage Co.*, 396 U.S. 57, 62-63, 163 USPQ 673, 675 (1969); *Great Atlantic & P. Tea Co. v. Supermarket Equipment Corp.*, 340 U.S. 147, 152, 87 USPQ 303, 306 (1950), emphasis added).

As discussed above, the Patent Office has not identified all of Appellant's claim elements and the present rejection is in error for this reason. Further, modification of the Clohessy reference in an attempt to arrive at Appellant's claimed subject matter would change at least two fundamental principles of operation of the Clohessy reference as discussed above and would render it unsatisfactory for its intended purposes.

As such, the Clohessy reference may not be properly modified to arrive at Appellant's claimed subject matter for at least these reasons. Accordingly, the present rejections should be overturned for at least this additional reason.

3. The McGuire Reference Teaches Away from Appellant's Claimed Subject Matter

The obviousness rejection is additionally deficient because the McGuire reference actually teaches away from Appellant's claimed subject matter. The McGuire reference discloses that a setup program running on client computer determines whether some current or

earlier version of files required for installation already exists on client computer and compiles a download request with a list of files that are needed for the update. (McGuire, column 4, lines 21-27, as cited, emphasis added). As such, in contrast to Appellant's claimed subject matter, the McGuire reference does not disclose a server resolving prerequisites.

As discussed above, a reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention." (MPEP § 2141.02 citing *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 U.S.P.Q. (BNA) 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984), emphasis in original).

The disclosure of the McGuire reference teaches a client device determining whether some current or earlier version of files required for installation already exists on client computer and compiles a download request with a list of files that are needed for the update. This disclosure teaches away from a server device performing processing, as claimed by Appellant.

The McGuire reference must be considered for all it teaches, including the fact that it teaches away from Appellant's claimed subject matter, and cannot be used as applied by the Patent Office. Accordingly, the present rejections should be overturned for at least this additional reason.

4. A Fundamental Principle of the McGuire Reference would be Changed if Modified to Attempt to Arrive at Appellant's Claimed Subject Matter, Which would Render the McGuire Reference Unsatisfactory for its Intended Purpose

The obviousness rejection is additionally deficient because modification of the McGuire reference to attempt to arrive at Appellant's claimed subject matter would change at least one fundamental principle of the McGuire reference, namely that it sends the setup program to the client device to execute to determine whether some current or earlier version of files required for installation already exists on client computer and compiles a download request with a list of files that are needed for the update via the client device. Accordingly, the McGuire reference may not be properly combined as alleged without rendering it unsatisfactory for its intended purpose.

The McGuire reference discloses that a setup program running on client computer determines whether some current or earlier version of files required for installation already exists

on client computer and compiles a download request with a list of files that are needed for the update. (McGuire, column 4, lines 21-27, as cited, emphasis added). Modification of the McGuire reference to cause the disclosed server to resolve prerequisites would change at least the disclosed client computer functionality, thus rendering the McGuire reference unsatisfactory for its intended purpose.

As discussed above, the Patent Office is reminded that "[i]f [a] proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification." (MPEP § 2143.01, V citing *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984), emphasis added). If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. (MPEP § 2143.01, VI citing *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959)).

At least the client computer operations to execute the setup program and determine whether some current or earlier version of files required for installation already exists on client computer and compile a download request with a list of files that are needed for the update would be changed if modified to attempt to arrive at Appellant's claimed subject matter. Accordingly, the present rejections should be overturned for at least this additional reason.

5. The Patent Office Has Engaged in Impermissible Hindsight Reconstruction and Has Used Appellant's Specification as a Template to Form the Rejection of Appellant's Claims

The obviousness rejection is also deficient because the Patent Office's rejections rely upon Appellant's present application to fill the gaps in the cited references. The Patent Office has not articulated any reasoning as to why a person of ordinary skill in the art would find the claims obvious in view of the missing elements discussed above. Accordingly, the Patent Office has engaged in impermissible hindsight reconstruction and has used Appellant's application to form the rejections of the claims.

"It is impermissible to pick and choose elements from the prior art while using the application as a template. *In re Fine*, 837 F.3d 1071 (Fed. Cir. 1988). To reconstruct the

invention by such selective extraction constitutes impermissible hindsight. *In re Gorman*, 933 F.2d 982 (Fed. Cir. 1991).

Appellant has identified many elements above that are missing from the cited references. As such, it is untenable for the present rejections to stand without the aid of impermissible hindsight reconstruction. The Patent Office has further not articulated any reasoning as to why a person of ordinary skill in the art would find the claims obvious in view of the missing elements discussed above. Accordingly, the present rejections should be overturned for at least this additional reason.

6. Dependent Claims 3, 11, 18, and 27 are Independently Patentable

Regarding the rejection of dependent claim 3, claim 3 depends from independent claim 1. Regarding the rejection of dependent claim 11, claim 11 depends from independent claim 10. Regarding the rejection of dependent claim 18, claim 18 depends from independent claim 16. Regarding the rejection of dependent claim 27, claim 27 depends from independent claim 25. Accordingly, claims 3, 11, 18, and 27 are not obvious for at least the same reasons argued above in relation to claims 1, 10, 16 and 25, respectively.

Claim 3 recites the "method of claim 1, further comprising loading the final set of OSGi bundles on the client device if the prerequisites are completely resolved." Claim 11 recites a computer implemented method capable of performing operations similar to those of claim 3. Claim 18 recites a system capable of performing operations similar to those of claim 3. Claim 27 recites a program product capable of performing operations similar to those of claim 3. Claims 11, 18, and 27 were rejected on the same basis as claim 3. (Final Office Action dated December 6, 2010, pages 10, 12, 14, and 16). Accordingly, the discussion below applies at least equally to claims 11, 18, and 27 with further consideration for the unique features of each of these claims.

The Patent Office alleges that the Clohessy reference discloses this claimed subject matter by citation to elements 108 and 114 of Figure 4. (Final Office Action dated December 6, 2010, page 10).

However, as discussed above, the Patent Office has not identified many elements of Appellant's independent claims. Particularly, the Patent Office has not identified Appellant's claimed automatically recursively resolving via the server device, in response to determining that the list of the prerequisites that are not currently present on the client device would not require

more client device OSGi package and OSGi service interface resources than the current OSGi package and OSGi service interface resources of the client device, the prerequisites by identifying a final set of OSGi bundles on the server device that fulfills the prerequisites within the resource limitations of the client device. Because the Patent Office has not identified Appellant's claimed automatically recursively resolving via the server device the prerequisites by identifying a final set of OSGi bundles on the server device that fulfills the prerequisites within the resource limitations of the client device, by antecedent basis alone, the Patent Office has not identified Appellant's claimed loading the final set of OSGi bundles on the client device if the prerequisites are completely resolved.

Since the references individually do not disclose or suggest the claim elements, the combination of references does not disclose or suggest the claim elements, and claims 3, 11, 18, and 27 are non-obvious. Since the claims are non-obvious, claims 3, 11, 18, and 27 are independently patentable over the rejection of record.

7. Dependent Claims 5, 13, 20, and 29 are Independently Patentable

Regarding the rejection of dependent claim 5, claim 5 depends from independent claim 1. Regarding the rejection of dependent claim 13, claim 13 depends from independent claim 10. Regarding the rejection of dependent claim 20, claim 20 depends from independent claim 16. Regarding the rejection of dependent claim 29, claim 29 depends from independent claim 25. Accordingly, claims 5, 13, 20, and 29 are not obvious for at least the same reasons argued above in relation to claims 1, 10, 16 and 25, respectively.

Claim 5 recites the "method of claim 1, wherein the prerequisites comprise at least one item selected from a group consisting of a service, a package and a computer resource needed by client device." Claim 13 recites a computer implemented method capable of performing operations similar to those of claim 5. Claim 20 recites a system capable of performing operations similar to those of claim 5. Claim 29 recites a program product capable of performing operations similar to those of claim 5. Claims 13, 20, and 29 were rejected on the same basis as claim 5. (Final Office Action dated December 6, 2010, pages 10, 12, 14, and 16). Accordingly, the discussion below applies at least equally to claims 13, 20, and 29 with further consideration for the unique features of each of these claims.

The Patent Office alleges that the Clohessy reference discloses this claimed subject matter by citation to physical RAM memory. (Final Office Action dated December 6, 2010, page 10).

However, Appellant has reviewed the cited disclosure and notes that the Clohessy reference discloses general description of computer components within the cited paragraph [0024] and makes clear that the disclosed RAM is considered a runtime resource in paragraph [0025]. As discussed above, the Clohessy reference differentiates runtime resources from the disclosed single determination of prerequisites, which again is different from Appellant's claimed automatically recursively resolving prerequisites by a server device. Further, it is the runtime resources that are processed to remove installed applications if enough runtime resources do not exist for a new application beginning at step 104 in Figure 4, and not prerequisites as claimed. As such, the Clohessy reference's use of RAM is different and the disclosed RAM is not Appellant's claimed prerequisite that comprises at least one item selected from a group consisting of a service, a package and a computer resource needed by client device. In view of the many elements of Appellant's claims that are missing, mere citation to a computer resource in a manner different from Appellant's claim language does not constitute disclosure of Appellant's claim language. Additionally, the Patent Office is believed to have failed to properly consider Appellant's claim language for at least these reasons.

Since the references individually do not disclose or suggest the claim elements, the combination of references does not disclose or suggest the claim elements, and claims 5, 13, 20, and 29 are non-obvious. Since the claims are non-obvious, claims 5, 13, 20, and 29 are independently patentable over the rejection of record.

8. Independent Claim 10, and Dependent Claims 6, 21, and 30 are Independently Patentable

Regarding the rejection of dependent claim 6, claim 6 depends from independent claim 1. Regarding the rejection of dependent claim 21, claim 21 depends from independent claim 16. Regarding the rejection of dependent claim 30, claim 30 depends from independent claim 25. Accordingly, claims 6, 21, and 30 are not obvious for at least the same reasons argued above in relation to claims 1, 16 and 25, respectively.

Independent claim 10 is patentable for at least the same reasons discussed above with respect to independent claims 1, 16, and 25. Appellant incorporates by reference its arguments above with respect to independent claims 1, 16, and 25 as if fully set forth herein with respect to claim 10.

Independent claim 10 additionally recites, among other things, "caching information derived from the response on the server device . . . ." Claim 6 recites a computer implemented method capable of performing operations similar to those of claim 10. Claim 21 recites a system capable of performing operations similar to those of claim 10. Claim 30 recites a program product capable of performing operations similar to those of claim 10. Claims 6, 21, and 30 were rejected on the same basis as claim 10. (Final Office Action dated December 6, 2010, pages 9, 10, 14-15, and 16). Accordingly, the discussion below applies at least equally to claims 6, 21, and 30 with further consideration for the unique features of each of these claims.

The Patent Office alleges that the McGuire reference discloses this claimed subject matter within column 13, lines 35-38. (Final Office Action dated December 6, 2010, page 9).

However, Appellant has reviewed the cited portions of the McGuire reference and finds that the cited disclosure reads in its entirety, that a "download server could return the files in any order that allowed it to optimize file caching across those other connections." (McGuire, column 13, lines 36-38, as cited in their entirety).

As such, the cited disclosure is of the server caching the files that were listed in the response from the client device for file caching purposes across other connections. This disclosure does not appear to be directed to any information derived from the response itself, as claimed by Appellant. Appellant finds no disclosure of any information derived from the response as cited. The files that are cached are believed to be exactly the ones listed by the client computer. As such, no derivation of information is believed needed to cache the files in the list received from the client computer of the McGuire reference. Accordingly, Appellant's claimed information derived from the response has not been identified, and Appellant's claimed caching information derived from the response on the server device has also not been identified.

Since the references individually do not disclose or suggest the claim elements, the combination of references does not disclose or suggest the claim elements, and claims 10, 6, 21, and 30 are non-obvious. Since the claims are non-obvious, claims 10, 6, 21, and 30 are independently patentable over the rejection of record.

9. Dependent Claims 7 and 14 are Independently Patentable

Regarding the rejection of dependent claim 7, claim 7 depends from independent claim 1. Regarding the rejection of dependent claim 14, claim 14 depends from independent claim 10. Accordingly, claims 7 and 14 are not obvious for at least the same reasons argued above in relation to claims 1 and 10 respectively.

Claim 7 recites the "method of claim 1, wherein the method is applied in the presence of a low bandwidth or high cost connection between the server device and the client device." Claim 14 recites a computer implemented method capable of performing operations similar to those of claim 7. Claims 14 was rejected on the same basis as claim 7. (Final Office Action dated December 6, 2010, pages 11 and 13). Accordingly, the discussion below applies at least equally to claims 7 and 14 with further consideration for the unique features of each of these claims.

The Patent Office alleges that the Clohessy reference discloses this claimed subject matter within paragraphs [0002] and [0003]. (Final Office Action dated December 6, 2010, page 11).

However, Appellant has reviewed the cited portions of the Clohessy reference and finds that the cited disclosure appears to be directed to runtime resources "used when application components are running." (Clohessy, para. 0002, as cited). Citation to runtime resources used by applications when they are running does not disclose Appellant's claimed processing being applied in the presence of a low bandwidth or high cost connection between the server device and the client device. At least because of the multiple elements that are missing from the cited references, this disclosure does not teach or suggest Appellant's claimed method that is applied in the presence of a low bandwidth or high cost connection between the server device and the client device.

Regarding the cited paragraph [0003], the disclosure of a "loading and unloading process for portable devices may occur with great frequency given the limited amount of flash memory available in the portable devices for storing application components" does not cure the multiple deficiencies discussed above. Further, paragraph [0021] discloses that the "connection 4 may be a physical connection (e.g., a docking station or 'cradle') or a wireless connection." (Clohessy,

para. 0021). Appellant believes that either the wireless connection or the physical connection via a docking station may represent a connection other than Appellant's claimed low bandwidth or high cost connection between the server device and the client device, at least because each connection is not disclosed to be constrained as cited or as required by Appellant's claims. At least because of the multiple elements that are missing from the cited references and the lack of clear disclosure of Appellant's claimed subject matter, this disclosure does not teach or suggest Appellant's claimed method that is applied in the presence of a low bandwidth or high cost connection between the server device and the client device.

Since the references individually do not disclose or suggest the claim elements, the combination of references does not disclose or suggest the claim elements, and claims 7 and 14 are non-obvious. Since the claims are non-obvious, claims 7 and 14 are independently patentable over the rejection of record.

10. Dependent Claims 8, 22 and 31 are Independently Patentable

Regarding the rejection of dependent claim 8, claim 8 depends from independent claim 1. Regarding the rejection of dependent claim 22, claim 22 depends from independent claim 16. Regarding the rejection of dependent claim 31, claim 31 depends from independent claim 25. Accordingly, claims 8, 22, and 31 are not obvious for at least the same reasons argued above in relation to claims 1, 16 and 25, respectively.

Claim 8 recites the "method of claim 1, wherein the final set of OSGi bundles include OSGi bundles that are identified from a repository accessed by the server device." Claim 22 recites a system capable of performing operations similar to those of claim 8. Claim 31 recites a program product capable of performing operations similar to those of claim 8. Claims 22 and 31 were rejected on the same basis as claim 8. (Final Office Action dated December 6, 2010, pages 11, 15, and 16-17). Accordingly, the discussion below applies at least equally to claims 22 and 31 with further consideration for the unique features of each of these claims.

The Patent Office alleges that the Clohessy reference discloses this claimed subject matter by citation to files residing on the server. (Final Office Action dated December 6, 2010, page 11). However, this allegation fails to properly consider that Appellant's claims recite a "repository" accessed by the server device. As such, Appellant's claims recite the repository

separately from the server device. Accordingly, citation to files residing on the server is believed irrelevant to Appellant's claimed subject matter, and does not disclose Appellant's claimed subject matter.

Since the references individually do not disclose or suggest the claim elements, the combination of references does not disclose or suggest the claim elements, and claims 8, 22, and 31 are non-obvious. Since the claims are non-obvious, claims 8, 22, and 31 are independently patentable over the rejection of record.

11. Dependent Claims 9, 15, 23, and 32 are Independently Patentable

Regarding the rejection of dependent claim 9, claim 9 depends from independent claim 1. Regarding the rejection of dependent claim 15, claim 15 depends from independent claim 10. Regarding the rejection of dependent claim 23, claim 23 depends from independent claim 16. Regarding the rejection of dependent claim 32, claim 32 depends from independent claim 25. Accordingly, claims 9, 15, 23, and 32 are not obvious for at least the same reasons argued above in relation to claims 1, 10, 16 and 25, respectively.

Claim 9 recites the "method of claim 1, further comprising: receiving the prerequisites on the client device; determining whether the client device has the prerequisites, wherein any of the prerequisites that the client device does not have represent the resource limitations; and sending the response to the server device, wherein the response includes the resource limitations." Claim 15 recites a computer implemented method capable of performing operations similar to those of claim 9. Claim 23 recites a system capable of performing operations similar to those of claim 9. Claim 32 recites a program product capable of performing operations similar to those of claim 9. Claims 15, 23, and 32 were rejected on the same basis as claim 9. (Final Office Action dated December 6, 2010, pages 11-12, 13-14, 15, and 17). Accordingly, the discussion below applies at least equally to 15, 23, and 32 with further consideration for the unique features of each of these claims.

The Patent Office alleges that the McGuire reference discloses this claimed subject matter. (Final Office Action dated December 6, 2010, pages 11-12).

However, the McGuire reference, as discussed above, is directed to files. Appellant has clearly claimed that the prerequisites comprise prerequisites for an OSGi bundle and further

comprise a set of all OSGi bundles that are necessary for utilizing the OSGi bundle. As such, the McGuire reference does not disclose Appellant's claimed prerequisites and citation to files does not fill the gaps discussed above with respect to the independent claims.

Since the references individually do not disclose or suggest the claim elements, the combination of references does not disclose or suggest the claim elements, and claims 9, 15, 23, and 32 are non-obvious. Since the claims are non-obvious, claims 9, 15, 23, and 32 are independently patentable over the rejection of record.

E. Claims 4, 12, 19, and 28 Are Not Obvious and Were Not Properly Rejected Under 35 U.S.C. § 103(a) as Being Unpatentable Over Clohessy in View of Spencer

Claims 4, 12, 19, and 28 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Clohessy in view of Spencer. For the Patent Office to establish *prima facie* obviousness, the Patent Office must show where each and every claim element can be found in the cited of references. MPEP § 2143.03.

The Patent Office has not shown where each and every element is taught or suggested in the combined references. Accordingly, obviousness has not been established. The present rejection shows clear error of fact, clear error by failing to properly consider Appellant's claim language, clear error by failing to properly determine the differences between Appellant's claim language and the disclosure of the cited Clohessy reference, and shows unreasonable over-broadening of Appellant's claim language. Based upon the multiple deficiencies in the present rejections, the Patent Office appears to have used impermissible hindsight recreation to combine embodiments to deprecate Appellant's claimed subject matter.

1. Multiple Elements of Claim 4, Claim 12, Claim 19, and Claim 28 are Missing from Clohessy in Combination with Spencer

The Patent Office has misinterpreted Appellant's claim language and the cited references, and thereby fails to properly show where all elements of the claims are disclosed. Appellant addresses elements that are missing from the cited references below in an order convenient for discussion.

a. Dependent Claims 4, 12, 19, and 28 are Independently Patentable Because Clohessy in Combination with Spencer Does Not Disclose Wherein the Loading Comprises the Server Device Instructing the Client Device to Load the Final Set of OSGi Bundles in a Particular Order

Regarding the rejection of dependent claim 4, claim 4 depends directly from claim 3 and indirectly from independent claim 1. Regarding the rejection of dependent claim 12, claim 12 depends directly from claim 11 and indirectly from independent claim 10. Regarding the rejection of dependent claim 19, claim 19 depends directly from claim 18 and indirectly from independent claim 16. Regarding the rejection of dependent claim 28, claim 28 depends directly from claim 27 and indirectly from independent claim 25. Accordingly, claims 4, 12, 19, and 28 are not obvious for at least the same reasons argued above in relation to claims 1, 10, 16 and 25, respectively.

Claim 4 recites the "method of claim 3, wherein the loading comprises the server device instructing the client device to load the final set of OSGi bundles in a particular order." Claim 12 recites a computer implemented method capable of performing operations similar to those of claim 4. Claim 19 recites a system capable of performing operations similar to those of claim 4. Claim 28 recites a program product capable of performing operations similar to those of claim 4. Claims 12, 19, and 28 were rejected on the same basis as claim 4. (Final Office Action dated December 6, 2010, pages 17-19). Accordingly, the discussion below applies at least equally to 12, 19, and 28 with further consideration for the unique features of each of these claims.

The Patent Office alleges that the Clohessy reference discloses loading comprises the server device instructing the client device to load the final set of OSGi bundles. (Final Office Action dated December 6, 2010, pages 17-18).

However, Appellant has reviewed the cited disclosure and finds no specific instruction from the server to the client device. Paragraph [0046] of the Clohessy reference discloses that "loading of the one or more new application components is initiated by the component manager 41." (Emphasis added). The component manager 41 is shown to be a part of the portable device within Figure 3, and not the server. As such, though paragraph [0046] discloses that the server may download the new application component, it is believed it is the portable device that initiates loading of the component. Appellant finds no actual disclosure as cited of a server device instructing the client device to load the final set of OSGi bundles.

As such, the additional citation to the Spencer reference is believed moot and is not believed to fill the gaps in the cited disclosure. The Patent Office further admits that the Clohessy and McGuire references do not disclose Appellant's claimed loading comprising the server device instructing the client device to load the final set of OSGi bundles in a particular order. (Final Office Action dated December 6, 2010, page 18).

The Patent Office alleges that the Spencer reference discloses downloading components in a particular order in paragraph [0004]. *Id.* However, this allegation fails to allege a server device instructing a client device to load the final set of OSGi bundles in a particular order, as claimed by Appellant. Further, the cited paragraph [0004] of the Spencer reference appears to disclose that a user downloads files to be installed in a particular order. (Spender, para. 0004, as cited). A user is not a server. As such, this disclosure fails to fill the gaps discussed above, and does not disclose a server device instructing a client device to load Appellant's claimed final set of OSGi bundles in a particular order.

Since the references individually do not disclose or suggest the claim elements, the combination of references does not disclose or suggest the claim elements, and claims 4, 12, 19, and 28 are non-obvious. Since the claims are non-obvious, claims 4, 12, 19, and 28 are independently patentable over the rejection of record.

F. Claim 24 Is Not Obvious and Was Not Properly Rejected Under 35 U.S.C. § 103(a) as Being Unpatentable Over Clohessy in View of Sharma

Claim 24 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Clohessy in view of Sharma. For the Patent Office to establish *prima facie* obviousness, the Patent Office must show where each and every claim element can be found in the cited of references. MPEP § 2143.03.

The Patent Office has not shown where each and every element is taught or suggested in the combined references. Accordingly, obviousness has not been established. The present rejection shows clear error of fact, clear error by failing to properly consider Appellant's claim language, clear error by failing to properly determine the differences between Appellant's claim language and the disclosure of the cited Clohessy reference, and shows unreasonable over-broadening of Appellant's claim language. Based upon the multiple deficiencies in the present

rejection, the Patent Office appears to have used impermissible hindsight recreation to combine embodiments to deprecate Appellant's claimed subject matter.

1. Multiple Elements of Claim 24 are Missing from Clohessy in Combination with Sharma

The Patent Office has misinterpreted Appellant's claim language and the cited references, and thereby fails to properly show where all elements of the claim are disclosed. Appellant addresses elements that are missing from the cited references below in an order convenient for discussion.

a. Dependent Claim 24 is Independently Patentable Because Clohessy in Combination with Sharma Does Not Disclose Wherein the System Uses SyncML DM Protocol for Communication Between the Client Device and the Server Device

Regarding the rejection of dependent claim 24, claim 24 depends directly from independent claim 16. Accordingly, claim 24 is not obvious for at least the same reasons argued above in relation to claim 16.

Claim 24 recites the "system of claim 16, wherein the system uses SyncML DM protocol for communication between the client device and the server device."

The Patent Office admits that the Clohessy and McGuire references fail to disclose this claimed subject matter. (Final Office Action dated December 6, 2010, page 20). The Patent Office alleges that the Sharma reference fills this admitted gap in paragraphs [0097] and [0099]. *Id.*

However, Appellant has reviewed the cited portions of the Sharma reference and finds that paragraph [0097] appears directed generally to discussion of the OSGi standard and that "OSGi . . . allows a collection of local, network connected devices to communicate with remote servers and download and run modular services." Appellant finds no disclosure of use of SnycML DM protocol within this cited paragraph and this paragraph is not believed to be particularly relevant and may even be merely cumulative.

Paragraph [0099] of the Sharma reference appears directed generally to discussion of the SyncML device management and discloses that the "focus in this standard is on things like calendars and appointments" and an ability to "change service settings on a mobile device and to

be able to download services to it." As such, the Sharma reference appears to disclose use of SyncML device management, but does not appear to disclose Appellant's claimed process using SyncML DM protocol for communication between the client device and the server device. As such, the Sharma reference does not fill the gaps discussed above.

Since the references individually do not disclose or suggest the claim elements, the combination of references does not disclose or suggest the claim elements, and claim 24 is non-obvious. Since the claim is non-obvious, claim 24 is independently patentable over the rejection of record.

G. The Standards for Statutory Subject Matter under 35 U.S.C. § 101

Section 101 of the Patent Act provides the statutory basis for XXX and reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

A"claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory." (Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035, as cited in the Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility - Official Gazette Date: 22 November 2005, emphasis added).

"When a computer program is recited in conjunction with a physical structure, such as a computer memory, USPTO personnel should treat the claim as a product claim." (MPEP, 2106.01, I, emphasis added).

"It has been the practice for a number of years that a "Beauregard Claim" of this nature be considered statutory at the USPTO as a product claim." (Ex parte Bo Li, Appeal 2008-1213, at 9, internal citation omitted, emphasis added).

H. Claims 25 and 27-32 are Directed to Statutory Subject Matter and Were Not Properly Rejected Under 35 U.S.C. § 101 as Being Directed to Non-Statutory Subject Matter

Claims 25 and 27-32 was rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

Claim 25 recites, among other things, a "program product stored on a storage medium and executed by a computer for resolving prerequisites for clients devices in an Open Service Gateway Initiative (OSGi) framework . . . ." Claims 27-32 depend from claim 25 and were rejected on the same basis as claim 25. (Final Office Action dated December 6, 2010, pages 4-5). Accordingly, the discussion below applies at least equally to 27-32 with further consideration for the unique features of each of these claims.

The Patent Office alleges that Appellant's claimed subject matter is non-statutory because the "broadest reasonable interpretation of a claim drawn to a storage medium typically covers forms of non-transitory tangible media and transitory propagating signals per se." (Final Office Action dated December 6, 2010, page 4). The Patent Office further alleges the claims are drawn to a form of energy. *Id.*

However, Appellant respectfully submits that the term "storage" by itself excludes signals *per se* and is by definition non-transitory. Appellant further notes that a storage medium is both distinct and different from a signal *per se*. Appellant further believes that a medium itself on which a program product is stored is not a signal *per se*. Because Appellant has not claimed a signal *per se*, Appellant's claimed subject matter is statutory. Further, the allegation of the Patent Office that Appellant's claimed storage medium may read on a signal *per se* is believed to constitute unreasonable over-broadening of Appellant's claim language. The allegation that Appellant's claims are drawn to a form of energy is believed to constitute both clear and arbitrary error in view of the discussion above.

Claim 25 is directed to statutory subject matter as a product claim and recites a storage medium that is distinct from a signal *per se*. Since claim 25 is directed to statutory subject matter as a product claim and recites a storage medium that is distinct from a signal *per se*, the rejection of claim 25 under 35 U.S.C. § 101 should be overturned. Claims 27-32 depend, either directly or indirectly, from claim 25 and further recite a program product and are also directed to

statutory subject matter as product claims. Since claims 27-32 are directed to statutory subject matter as product claims, the rejection of claims 27-32 under 35 U.S.C. § 101 should be overturned.

I. Conclusion

The Patent Office has alleged the Clohessy reference and the McGuire reference to form an obviousness rejection of independent claims 1, 10, 16 and 25. However, the Patent Office has not shown where all the elements of the claims are depicted with sufficient particularity in the references as cited to sustain a *prima facie* case of obviousness.

Regarding the failure to show all elements of the claims, the Patent Office has failed to identify Appellant's claimed "automatically recursively resolving via the server device . . . the prerequisites by identifying a final set of OSGi bundles on the server device that fulfills the prerequisites within the resource limitations of the client device." The Patent Office has cited processing of determining "currently available runtime system resources . . . assuming that all application components already loaded are using their maximum" (CARSRMAX) required runtime system resources of the portable device and whether maximum runtime system resources for a new application component would exceed the CARSRMAX (e.g., currently available system resources) of the portable device, and prohibiting installation of the new application components if CARSRMAX are exceeded. The cited processing may apparently return after removal of a program to re-determine the "currently available runtime system resources" of the portable device and re-compare with CARSRMAX. However, determining currently available runtime system resources is very different from determining the prerequisites themselves for an OSGi bundle. The Clohessy reference itself discloses a single determination of prerequisites in an early part of the disclosed processing and does not disclose returning to re-determine the prerequisites. Further, re-determining the same prerequisites would still not arrive at Appellant's claimed automatically recursively resolving the prerequisites via a server device for an actual OSGi bundle itself. As such, Appellant's claimed subject matter has not been disclosed by the cited references and the present rejections are in clear error for at least these reasons.

The Patent Office cites the McGuire reference against Appellant's claimed "substituting via the server device, . . . at least one other OSGi bundle that operates within the resource limitations of the client device . . . ." The Patent Office admits that the Clohessy reference does

not disclose this claimed subject matter and cites the McGuire reference for this admittedly missing subject matter. However, the McGuire reference as cited discloses that a "setup program running on the client computer determines whether some current or earlier versions of those files required for installation already exist on the client computer, and compiles a download request with a list of files needed" for the update. The Patent Office admits that "the server . . . [sends] the necessary files to the client based on a response from the client on resource deficiency." The Patent Office has further admitted that the "server, in response to the request, prepares update files corresponding to the requested files and downloads them to the client." As such, Appellant's claimed subject matter has not been disclosed by the cited references and the present rejections are in clear error for at least these additional reasons.

Additional elements of Appellant's claims have not been identified, as discussed in more detail above, and the present rejections are in clear error for at least these additional reasons.

In view of the multiple elements of Appellant's claims that are missing from the cited references, the Patent Office has over broadened Appellant's claim language in a manner that is not consistent with Appellant's Specification. Further, this over-broadening would not be reasonable to a person of ordinary skill in the art. Accordingly, the Patent Office has unreasonably over-broadened Appellant's claimed subject matter and the present rejections are in clear error for at least these additional reasons.

Modification of the Clohessy reference in an attempt to arrive at Appellant's claimed subject matter would change at least the disclosed operator interaction for determination regarding removal of other applications and would change the re-calculation of the currently available runtime system resources to Appellant's claimed prerequisites (which are different from the disclosed currently available runtime system resources). Such, changes would render the Clohessy reference unsatisfactory for its intended purposes. Accordingly, the Clohessy reference may not be properly modified to arrive at Appellant's claimed subject matter for at least these reasons and the present rejections are in clear error for at least this additional reason.

Modification of the McGuire reference to attempt to arrive at Appellant's claimed subject matter would change at least one fundamental principle of the McGuire reference, namely that it sends the setup program to the client device to execute so that the client device determines whether some current or earlier versions of files required for installation already exist on the client computer, and compiles a download request with a list of files that are needed for the

update via the client device. This "client-side" determination of needed "files" would be changed if modified to arrive at Appellant's claimed automated substituting via the "server device" at least one other "OSGi bundle" that operates within the resource limitations of the client device. The disclosed client is not a server. Further, the disclosed files are not OSGi bundles. Accordingly, the McGuire reference may not be properly combined as alleged without rendering it unsatisfactory for its intended purpose and changing at least these fundamental principles, and the present rejections are in clear error for at least these additional reasons.

The Patent Office's interpretation of the Clohessy reference in combination with the McGuire reference is at least clearly erroneous and is not reasonable to someone skilled in the art. Additionally, the Patent Office has failed to properly consider Appellant's claim language and the differences between Appellant's claim language and the references as cited and the present rejections are in clear error for at least these additional reasons.

The McGuire reference further teaches away from Appellant's claims by disclosing client-side processing for determination of the needed files instead of server-side processing as claimed by Appellant. As such, the present rejections are in clear error for at least this additional reason.

In view of the above, and the detailed discussion above, the Patent Office has improperly combined the references using hindsight to reconstruct the claimed invention by using Appellant's disclosure as a template in clear error. Additionally, the Patent Office has improperly rejected claims 25 and 27-32 under 35 U.S.C. § 101 in clear error.

As such, Appellant requests that the Board reverse the Examiner and instruct the Examiner to allow the claims for these reasons.

Respectfully submitted,

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8. CLAIMS APPENDIX

1. (Previously Presented) A computer-implemented method for resolving prerequisites for client devices in an Open Service Gateway Initiative (OSGi) framework, comprising:

determining, on a server device, prerequisites for an OSGi bundle to be loaded on a client device, the prerequisites comprising a set of all OSGi bundles that are necessary for utilizing the OSGi bundle;

communicating, prior to communicating any of the OSGi bundles to the client device, a list of the prerequisites from the server device to the client device;

receiving a response from the client device, wherein the response identifies any resource limitations of the client device determined by the client device based on a comparison of the list of the prerequisites and current OSGi package and OSGi service interface resources of the client device, the resource limitations comprising all prerequisites of the list of the prerequisites that are not currently present on the client device;

automatically recursively resolving via the server device, in response to determining that the list of the prerequisites that are not currently present on the client device would not require more client device OSGi package and OSGi service interface resources than the current OSGi package and OSGi service interface resources of the client device, the prerequisites by identifying a final set of OSGi bundles on the server device that fulfills the prerequisites within the resource limitations of the client device; and

substituting via the server device, in response to determining that the list of the prerequisites that are not currently present on the client device would require more client device OSGi package and OSGi service interface resources than the current OSGi package and OSGi service interface resources of the client device, at least one other OSGi bundle that operates within the resource limitations of the client device for one of the OSGi bundles and one of the prerequisites of the list of the prerequisites that are not currently present on the client device.

2. (Cancelled)

3. (Original) The method of claim 1, further comprising loading the final set of OSGi bundles on the client device if the prerequisites are completely resolved.

4. (Previously Presented) The method of claim 3, wherein the loading comprises the server device instructing the client device to load the final set of OSGi bundles in a particular order.

5. (Previously Presented) The method of claim 1, wherein the prerequisites comprise at least one item selected from a group consisting of a service, a package and a computer resource needed by client device.

6. (Previously Presented) The method of claim 1, further comprising caching information derived from the response on the server device.

7. (Previously Presented) The method of claim 1, wherein the method is applied in the presence of a low bandwidth or high cost connection between the server device and the client device.

8. (Previously Presented) The method of claim 1, wherein the final set of OSGi bundles include OSGi bundles that are identified from a repository accessed by the server device.

9. (Previously Presented) The method of claim 1, further comprising:

receiving the prerequisites on the client device;

determining whether the client device has the prerequisites, wherein any of the prerequisites that the client device does not have represent the resource limitations; and

sending the response to the server device, wherein the response includes the resource limitations.

10. (Previously Presented) A computer-implemented method for recursively resolving prerequisites for client devices in an Open Service Gateway Initiative (OSGi) framework, comprising:

determining, on a server device, prerequisites for an OSGi bundle to be loaded on a client device, the prerequisites comprising a set of all OSGi bundles that are necessary for utilizing the OSGi bundle;

communicating, prior to communicating any of the OSGi bundles to the client device, a list of the prerequisites from the server device to the client device;

receiving a response from the client device, wherein the response identifies any resource limitations of the client device determined by the client device based on a comparison of the list of the prerequisites and current OSGi package and OSGi service interface resources of the client device, the resource limitations comprising all prerequisites of the list of the prerequisites that are not currently present on the client device;

caching information derived from the response on the server device;

automatically recursively resolving via the server device, in response to determining that the list of the prerequisites that are not currently present on the client device would not require more client device OSGi package and OSGi service interface resources than the current OSGi package and OSGi service interface resources of the client device, the prerequisites by recursively identifying a final set of OSGi bundles on the server device that fulfills the prerequisites within the resource limitations of the client device; and

substituting via the server device, in response to determining that the list of the prerequisites that are not currently present on the client device would require more client device OSGi package and OSGi service interface resources than the current OSGi package and OSGi service interface resources of the client device, at least one other OSGi bundle that operates within the resource limitations of the client device for one of the OSGi bundles and one of the prerequisites of the list of the prerequisites that are not currently present on the client device.

11. (Previously Presented) The method of claim 10, further comprising loading the final set of OSGi bundles on the client device if the prerequisites are completely resolved.

12. (Previously Presented) The method of claim 11, wherein the loading comprises the server device instructing the client device to load the final set of OSGi bundles in a particular order.

13. (Previously Presented) The method of claim 10, wherein the prerequisites comprise at least one item selected from a group consisting of a service, a package and a computer resource needed by client device.

14. (Previously Presented) The method of claim 10, wherein the method is applied in the presence of a low bandwidth or high cost connection between the server device and the client device.

15. (Previously Presented) The method of claim 10, further comprising:

receiving the prerequisites on the client device;

determining whether the client device has the prerequisites, wherein any of the prerequisites that the client device does not have represent the resource limitations; and

sending the response to the server device, wherein the response includes the resource limitations.

16. (Previously Presented) A computerized system for resolving prerequisites for client devices in an Open Service Gateway Initiative (OSGi) framework, comprising:

a memory that stores OSGi bundle information at a server device; and

a processor programmed to execute:

a prerequisite computation system for determining, on the server device, prerequisites for an OSGi bundle to be loaded on a client device, the prerequisites comprising a set of all OSGi bundles that are necessary for utilizing the OSGi bundle;

a communication system for communicating, prior to communicating any of the OSGi bundles to the client device, a list of the prerequisites from the server device to the client device, and for receiving a response from the client device, wherein the response identifies any resource limitations of the client device determined by the client device based on a comparison of the list of the prerequisites and current OSGi package and OSGi service interface resources of the client device, the resource limitations comprising all prerequisites of the list of the prerequisites that are not currently present on the client device; and

a prerequisite resolution system for:

automatically recursively resolving via the server device, in response to determining that the list of the prerequisites that are not currently present on the client device would not require more client device OSGi package and OSGi service interface resources than the current OSGi package and OSGi service

interface resources of the client device, the prerequisites by identifying a final set of OSGi bundles stored within the memory at the server device that fulfills the prerequisites within the resource limitations of the client device; and

substituting via the server device, in response to determining that the list of the prerequisites that are not currently present on the client device would require more client device OSGi package and OSGi service interface resources than the current OSGi package and OSGi service interface resources of the client device, at least one other OSGi bundle that operates within the resource limitations of the client device for one of the OSGi bundles and one of the prerequisites of the list of the prerequisites that are not currently present on the client device.

17. (Cancelled)

18. (Previously Presented) The system of claim 16, where the processor is further programmed to execute a bundle loading system for loading the final set of OSGi bundles on the client device if the prerequisites are completely resolved.

19. (Original) The system of claim 18, wherein the bundle loading system comprises an instruction passing system for instructing the client device to load the final set of OSGi bundles in a particular order.

20. (Previously Presented) The system of claim 16, wherein the prerequisites comprise at least one item selected from a group consisting of a service, a package and a computer resource needed by client device.

21. (Previously Presented) The system of claim 16, where the processor is further programmed to execute a response caching system for caching information derived from the response within the memory at the server device.

22. (Previously Presented) The system of claim 16, where the memory comprises a repository and wherein the final set of OSGi bundles includes OSGi bundles that are identified from the repository accessed by the server device.

23. (Previously Presented) The system of claim 16, where the processor is further programmed to process the response generated via:

an analysis system executing on the client device that determines whether the client device has the prerequisites, wherein any prerequisites that the client device does not have are identified as the resource limitations; and

a response system that sends the response from the client device to the server device.

24. (Previously Presented) The system of claim 16, wherein the system uses SyncML DM protocol for communication between the client device and the server device.

25. (Previously Presented) A program product stored on a storage medium and executed by a computer for resolving prerequisites for clients devices in an Open Service Gateway Initiative (OSGi) framework, comprising:

program code for determining, on a server device, prerequisites for an OSGi bundle to be loaded on a client device, the prerequisites comprising a set of all OSGi bundles that are necessary for utilizing the OSGi bundle;

program code for communicating, prior to communicating any of the OSGi bundles to the client device, a list of the prerequisites from the server device to the client device, and for receiving a response from the client device, wherein the response identifies any resource limitations of the client device determined by the client device based on a comparison of the list of the prerequisites and current OSGi package and OSGi service interface resources of the client device, the resource limitations comprising all prerequisites of the list of the prerequisites that are not currently present on the client device;

program code for automatically recursively resolving via the server device, in response to determining that the list of the prerequisites that are not currently present on the client device would not require more client device OSGi package and OSGi service interface resources than the current OSGi package and OSGi service interface resources of the client device, the

prerequisites by identifying a final set of OSGi bundles on the server device that fulfills the prerequisites within the resource limitations of the client device; and

program code for substituting via the server device, in response to determining that the list of the prerequisites that are not currently present on the client device would require more client device OSGi package and OSGi service interface resources than the current OSGi package and OSGi service interface resources of the client device, at least one other OSGi bundle that operates within the resource limitations of the client device for one of the OSGi bundles and one of the prerequisites of the list of the prerequisites that are not currently present on the client device.

26. (Cancelled)

27. (Original) The program product of claim 25, further comprising program code for loading the final set of OSGi bundles on the client device if the prerequisites are completely resolved.

28. (Original) The program product of claim 27, wherein the program code for loading comprises program code for instructing the client device to load the final set of OSGi bundles in a particular order.

29. (Previously Presented) The program product of claim 25, wherein the prerequisites comprise at least one item selected from a group consisting of a service, a package and a computer resource needed by client device.

30. (Previously Presented) The program product of claim 25, further comprising program code for caching the information derived from the response on the server device.

31. (Previously Presented) The program product of claim 25, wherein the final set of OSGi bundles includes OSGi bundles that are identified from a repository accessed by the server device.

32. (Previously Presented) The program product of claim 25, further comprising:

program code for determining whether the client device has the prerequisites, wherein any prerequisites that the client device does not have are identified as the resource limitations; and

program code for sending the response from the client device to the server device.

9. EVIDENCE APPENDIX

Appellant relies on no evidence, thus this appendix is not applicable.

10. RELATED PROCEEDINGS APPENDIX

As there are no related proceedings, thus this appendix is not applicable.